

# Warm-Up

1/4/05

1) least to greatest: .75, .0555, .07, .075, .750  
.75, .750, .075, .07, .0555

x	y
2	10
4	16
6	22
8	28
10	34

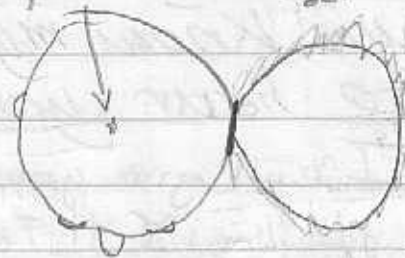
$(3x+5)-1=y$

$$\begin{array}{r} 247 \\ \times 31 \\ \hline 247 \\ +7410 \\ \hline 7657 \end{array}$$

$$\begin{array}{r} 188914 \\ - 9999 \\ \hline 188075 \end{array}$$



Brain



'Fill Two' isn't exactly the easiest game to play, which is why I'm going to tell you a couple of strategies. One strategy: Go for the big numbers at first, but after that look for numbers that will fill in the rest of a grid, even if it may mean going low. (That's how I won!) Another strategy: Look carefully at the numbers you choose. With decimals, it's very easy to be mistaken. Now you know my strategies, and I'd like to hear yours! - Rohan

I will give you the strategies I used while playing "Fill Two". But buyer beware; I lost the game. I first picked large numbers to fill each of the two grids, then lower numbers to fill in the remainder. Perhaps adding up the visible numbers on the table, selecting the numbers that total closest to two, as much as possible, would have put me in a better position to win the game. - Jennifer

1/3/01

My strategy for "Fill Four" was to use each decimal in the grid in which the same decimal place was used. For example, if I picked a card that said 225 thousandths, I would put it on the thousandths grid. I usually, but not always, used this strategy. Even so, I lost the game to my mom.

—Ronah

This time I chose numbers that were in a mid-range, and placed them in whatever grid seemed to fit. I stayed away from the very high numbers so that I would have a greater chance of being able to use one of the numbers on the cards. With some luck in addition to this strategy, I won.

—Jennifer

1/6/05  
 Chapter 13  
 all problems

HHH  
 HHH  
 HHH

# Check What You Know

1) divisor			26) 9
2) dividend			16) 144
3) equivalent decimals			-144
4) 700	8) 12	2) 48	0
5) 60	7) 84	6) 288	27) 26
6) 9	-7 ↓	-24	32) 832
7) 30000	14	48	-64 ↓
8) 3200	-14	48	192
9) 50	0	0	-192
10) 4	19) 23	23) 206	28) 85
20) 80	4) 92	4) 824	15) 3825
11) 6	-8 ↓	-80 ↓	-30 ↓
10) 60	12	24	225
12) 7	12	24	-225
60) 420	0	0	0
13) 8	20) 97	24) 54	29) 15
80) 160	5) 485	3) 620	9) 1365
14) 30	-45 ↓	-15 ↓	-91 ↓
30) 900	35	12	455
15) 20	-35	12 ↓	-455
40) 800	0	00	0
16) 60	21) 23	25) 406	30) 0.8 = 0.80 = 0.800
40) 2400	9) 207	8) 3248	31) 0.25 = 0.250 = 0.2500
17) 50	18 ↓	32 ↓	32) 1.3 = 1.300 = 1.30
20) 1,000	27	048	33) 2.60 = 2.6 = 2.6000
	-27	-48	
	0	0	

Chapter 5  
Page 218 + 219

# Warm-Up

11/10/05

$$\begin{array}{r} 1312 \\ 28810818 \\ \hline 1245849 \end{array}$$

- 2) Least to greatest
- 1.04, 1.40, 1.049, 1.0299, 1.44
- 1.0299, 1.04, 1.049, 1.40, 1.44

$$\begin{array}{r} 1 \\ \times 27 \\ \hline 1308 \\ +6540 \\ \hline 2848 \end{array}$$

in	out
5	8
6	10
7	12
8	14
9	16
10	18

$x2 - 2 = y$

1/10/04

pgs 218 + 219

Chapter 13

PW 13.1

1) In examples A-C, you bring the decimal point up.

2)  $100 \div 5 = 20$

$10 \div 5 = 2$

$1 \div 5 = 0.2$

3)  $400 \div 8 = 50$

$40 \div 8 = 5$

$4 \div 8 = 0.5$

4)  $500 \div 2 = 250$

$50 \div 2 = 25$

$5 \div 2 = 0.25$

5)  $300 \div 5 = 60$

$30 \div 5 = 6$

$3 \div 5 = 0.6$

6)  $160 \div 4 = 40$

$16 \div 4 = 4$

$1.6 \div 4 = 0.4$

7)  $1500 \div 6 = 250$

$150 \div 6 = 25$

$15 \div 6 = 2.5$

8)  $400 \div 5 = 80$

$40 \div 5 = 8$

$4 \div 5 = 0.8$

9)  $2000 \div 8 =$

$200 \div 8 =$

$20 \div 8 =$

# Warm-Up 1/11/05

1)  $480 \div 6 = 80$

$300 \div 15 = 20$

$48 \div 6 = 8$

2) 
$$\begin{array}{r} 29812 \\ 13 \overline{) 18978} \\ \underline{-179} \phantom{8} \\ 106 \phantom{8} \\ \underline{-106} \phantom{8} \\ 0 \phantom{8} \\ \underline{-0} \\ 0 \end{array}$$

3)  $(3x+4)3=y$

in	out
1	21
2	30
3	39
4	48
5	57

# Warm-Up 1/13/04

1) = ("low income")  
income

2)  $360 \div 5 = 72$ ,  $48 \div 3 = 16$

$$\begin{array}{r} 72 \\ 5 \overline{) 360} \\ \underline{-35} \phantom{0} \\ 10 \phantom{0} \\ \underline{-10} \\ 0 \end{array}$$

$$\begin{array}{r} 16 \\ 3 \overline{) 48} \\ \underline{-3} \phantom{0} \\ 18 \phantom{0} \\ \underline{-18} \\ 0 \end{array}$$

3)  $323$  4) least to greatest: 2.12, 2.0122, 2.120, 2.12

$$\begin{array}{r} 2541 \\ + 2630 \\ \hline 5171 \end{array}$$

$423$	$417$
$\times 28$	$\times 98$
$\begin{array}{r} 1876 \\ + 8460 \\ \hline 9306 \end{array}$	$\begin{array}{r} 13736 \\ + 37530 \\ \hline 40866 \end{array}$

$$\frac{1}{6} \text{ of } d \quad \boxed{\text{---} \odot \text{---}} =$$

$$\begin{array}{r} 0.166 \\ 6 \overline{) 1.000} \\ \underline{-6} \phantom{00} \\ 40 \phantom{0} \\ \underline{-36} \phantom{0} \\ 40 \end{array}$$



# Warm-Up

1/18/05

$\frac{58}{64} = 0.90625$ $\begin{array}{r} 0.90625 \\ 64 \overline{) 58.00000} \\ \underline{-576} \phantom{00} \\ 400 \phantom{00} \\ \underline{-384} \phantom{00} \\ 160 \phantom{00} \\ \underline{-128} \phantom{00} \\ 320 \phantom{00} \\ \underline{-320} \\ 0 \end{array}$	$\frac{10}{25} = 0.4$ $\begin{array}{r} 0.4 \\ 25 \overline{) 10.0} \\ \underline{-100} \\ 0 \end{array}$	$\frac{7}{8} = 0.875$ $\begin{array}{r} 0.875 \\ 8 \overline{) 7.000} \\ \underline{-64} \phantom{00} \\ 60 \phantom{00} \\ \underline{-56} \phantom{00} \\ 40 \phantom{00} \\ \underline{-40} \\ 0 \end{array}$
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3) By subtracting, whatever the closest perfectly divided number is, you subtract <sup>from</sup> the number you want to

x in	y out
5	12
9	23
1	3
7	19
2	8

$$(x5+1) \div 2 = y$$

divide by 9  
For example  
let's say I  
wanted to  
divide 56 by  
9. The closest

perfectly divisible number is 54. Then I subtract 56 from 54, and it equals 2, so the remainder of  $56 \div 9$  is 2.

$$\begin{array}{r} 9 \overline{) 10} \\ \underline{9} \\ 1 \\ 9 \overline{) 15} \\ \underline{9} \\ 6 \\ 9 \overline{) 35} \\ \underline{27} \\ 8 \\ 9 \overline{) 62} \\ \underline{54} \\ 8 \\ 9 \overline{) 67} \\ \underline{63} \\ 4 \end{array}$$

Warm-up

"I can tell you the remainder of any number divided by 9 without even dividing." How can she do that? Hint: divide 5 different numbers by 9 and look for a pattern.

Chapt. 14

1/19/05

19234

# Check What you Know

1) $12 \div 4 = 3$	28) $42.4$	1) $5.35$
2) $10 \div 2 = 5$	29) $45.6$	5) $26.75$
3) $88 \div 11 = 8$	30) $9.8$	$-25 \downarrow$
4) $63 \div 7 = 9$	31) $28.6$	$17 \downarrow$
5) $18 \div 6 = 3$	32) $62.10$	$-15 \downarrow$
6) $36 \div 9 = 4$	33) $0.73$	$25$
7) $72 \div 6 = 12$	$64.38$	$-25$
8) $72 \div 8 = 9$	$42 \downarrow$	$0$
9) $28 \div 7 = 4$	$18$	38) $0.79$
10) $60 \div 12 = 5$	$-18$	4) $3.16$
11) $90 \div 9 = 10$	$0$	$-28 \downarrow$
12) $25 \div 5 = 5$	34) $2.58$	$36$
13) $70, 700$	8) $20.64$	$36$
14) $580, 5800$	$10 \downarrow$	$0$
15) $72, 30, 72, 00$	$46$	39) $0.1088$
16) $3040, 304, 00$	$40 \downarrow$	9) $1.0800$
17) $190, 19, 00$	$64$	$-9 \downarrow \downarrow$
18) $2940, 294, 00$	$-64$	$080$
19) $64, 0, 640, 0$	$0$	$-72 \downarrow$
20) $4, 0, 40, 0$	35) $0.94$	$80$
21) $220, 2, 200$	$63 \downarrow$	$-70$
22) $7, 0, 70, 0$	$28$	$8$
23) $620, 62, 00$	$0$	
24) $0.90, 9, 00$	36) $2.3$	4) $63.04$
25) $342$	37) $49.2$	5) $315.20$
$2510.26$	$8 \downarrow$	$-20 \downarrow$
	$12$	$15 \downarrow$
26) $163$	$72$	$-15 \downarrow$
$521.5$	$0$	$020$
27) $83$		$-20$
$2190.0$		$0$



# Warm-Up

1/20/05

1) $5r6$ $\begin{array}{r} 9 \overline{) 51} \\ \underline{45} \\ 6 \end{array}$	2) $2r5$ $\begin{array}{r} 9 \overline{) 23} \\ \underline{18} \\ 5 \end{array}$	3) $8r6$ $\begin{array}{r} 9 \overline{) 78} \\ \underline{72} \\ 6 \end{array}$
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3)  $\$1.21 \div 5 = \$0.24$   
 $\$0.24$   
 $5 \overline{) 1.21}$

2)  $240 \div 6 = 40$   
 $2,400 \div 6 = 400$   
 $24,000 \div 6 = 4,000$   
 $240,000 \div 6 = 40,000$

$$\begin{array}{r} 10 \downarrow \\ 21 \\ \underline{-20} \\ 1 \end{array}$$

4)  $\frac{1}{2} = 0.5$      $\frac{20}{100} = 0.2$   
 $\frac{3}{4} = 0.75$      $\frac{15}{1000} = 0.015$

5) $\frac{1}{2}$	out	$(7x+13) \div 24$
$\frac{3}{4}$	12	
$\frac{6}{8}$		
$\frac{4}{9}$		

# Warm-Up

1/24/05

1) $28833$	2) $5r6$	3) $13,550$
6) $173,000$	5) $127.0$	9) $123,000$
$\begin{array}{r} 12 \downarrow \\ 53 \\ \underline{-48} \\ 50 \\ \underline{-48} \\ 20 \\ \underline{-18} \\ 20 \\ \underline{-18} \\ 2 \end{array}$	$\begin{array}{r} 12 \downarrow \\ 27 \\ \underline{-25} \\ 30 \\ \underline{-30} \\ 0 \end{array}$	$\begin{array}{r} 9 \downarrow \\ 33 \\ \underline{-28} \\ 50 \\ \underline{-45} \\ 50 \\ \underline{-45} \\ 5 \end{array}$

# Warm-Up

1/24/05

(continued)

2)	$\begin{array}{r} 1.24 \\ \times 7 \\ \hline 8.68 \end{array}$	$\begin{array}{r} 7.283 \\ \times 1.8 \\ \hline 7283 \\ +582640 \\ \hline 589.923 \end{array}$	$\begin{array}{r} 0.431 \\ \times 1.23 \\ \hline 1293 \\ +08620 \\ \hline 9813 \end{array}$
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3) Which equation is not true?

$6300 \div 9 = 70$

$63000 \div 90 = 700$

$630 \div 9 = 70$

$63 \div 9 = 7$

4)	$\frac{1}{2}$	$\frac{1}{4}$
	1	2.3
	2	0.3
	3	2
	4	3.6
	5	5.3

$(5x \div 3) - 3 = 4$

6) $81 \times 7 = 567$	$567 \div 7 = 81$
$8.1 \times 7 = 56.7$	$56.7 \div 7 = 8.1$
$0.81 \times 7 = 5.67$	$5.67 \div 7 = 0.81$

8) $5 \times 2 = 10$	$10 \div 2 = 5$
$0.5 \times 2 = 1.0$	$1.0 \div 2 = 0.5$
$0.05 \times 2 = 0.10$	$0.10 \div 2 = 0.05$

10) $57 \times 8 = 456$	$456 \div 8 = 57$
$5.7 \times 8 = 45.6$	$45.6 \div 8 = 5.7$
$0.57 \times 8 = 4.56$	$4.56 \div 8 = 0.57$

12) $75 \div 15 = 5$	14) $360 \div 4 = 90$
$7.5 \div 1.5 = 0.5$	$36 \div 0.4 = 90$
$0.75 \div 0.15 = 0.05$	$3.6 \div 0.04 = 9$

16) $120 \div 40 = 3$	18) $0.16 \div 0.04 = 0.04$
$12 \div 4 = 3$	20) $1.6 \div 0.8 = 2$
$1.2 \div 0.4 = 3$	22) $0.81 \div 0.09 = 9$

24) 0.1 hour  
26) Sheryl made her amount 10 times more than it should have been. The correct answer is 150 nickels.

28)  $65,984 \div 44 = 1,499.6363^{\infty}$

30)  $9 \times 5 = 45$  (2) (1)  $(20 \times 25) - 1$

# Warm-Up

1/25/05

$$\begin{array}{r} 423 \\ 1) 1.735 \\ \times 6 \\ \hline 10.410 \end{array}$$

$$\begin{array}{r} 12 \\ 2.25 \\ \times .18 \\ \hline 1125 \\ +2250 \\ \hline .3375 \end{array}$$

$$\begin{array}{r} 23 \\ .035 \\ \times 18 \\ \hline 245 \\ +0350 \\ \hline 0.595 \end{array}$$

$$\begin{array}{r} 2) 61.8333^{\infty} \\ 6) 371.000 \\ \underline{-36} \downarrow \\ 11 \\ \underline{-6} \downarrow \\ 50 \\ \underline{-48} \downarrow \\ 20 \\ \underline{-18} \downarrow \\ 20 \\ \underline{-18} \downarrow \\ 20 \\ \underline{-18} \downarrow \\ 2 \end{array}$$

$$\begin{array}{r} 20.6666^{\infty} \\ 3) 242.000 \\ \underline{-24} \downarrow \downarrow \\ 020 \\ \underline{-18} \downarrow \\ 20 \\ \underline{-18} \downarrow \\ 20 \\ \underline{-18} \downarrow \\ 2 \end{array}$$

$$\begin{array}{r} 26.5555 \\ 9) 239.000 \\ \underline{-18} \downarrow \\ 59 \\ \underline{-54} \downarrow \\ 50 \\ \underline{-45} \downarrow \\ 50 \\ \underline{-45} \downarrow \\ 50 \\ \underline{-45} \downarrow \\ 5 \end{array}$$

$$\begin{array}{r} 3) 0.875 \\ 2) 1.750 \\ \underline{-16} \downarrow \\ 15 \\ \underline{-14} \downarrow \\ 10 \\ \underline{-10} \downarrow \\ 0 \end{array}$$

$$\begin{array}{r} 3.50 \\ 5) 17.50 \\ \underline{-15} \downarrow \\ 25 \\ \underline{-25} \downarrow \\ 00 \end{array}$$

$$\begin{array}{r} 0. \\ 3) 1.95 \end{array}$$

# Warm-Up 1/25/05

$$\begin{array}{r}
 \frac{16}{24} \\
 1) \underline{0.666\overline{6}} \\
 24 \overline{)16.000} \\
 \underline{144} \downarrow \\
 160 \\
 \underline{144} \downarrow \\
 160 \\
 \underline{144} \\
 0
 \end{array}$$

$$\begin{array}{r}
 \frac{3}{4} \\
 0.75 \\
 4 \overline{)3.00} \\
 \underline{28} \downarrow \\
 20 \\
 \underline{20} \\
 0
 \end{array}$$

$$\begin{array}{r}
 \frac{10}{100} \\
 0.1 \\
 100 \overline{)10.0} \\
 \underline{100} \\
 0
 \end{array}$$

$$\begin{array}{r}
 \frac{7}{28} \\
 0.25 \\
 28 \overline{)7.00} \\
 \underline{56} \downarrow \\
 140 \\
 \underline{140} \\
 0
 \end{array}$$

$$\begin{array}{r}
 \frac{12}{24} \\
 0.5 \\
 24 \overline{)12.0} \\
 \underline{120} \\
 0
 \end{array}$$

$$\begin{array}{r}
 40.83\overline{3} \\
 2) \underline{40.83\overline{3}} \\
 24 \downarrow \\
 050 \\
 \underline{48} \downarrow \\
 20 \\
 \underline{18} \downarrow \\
 20 \\
 \underline{78} \\
 2
 \end{array}$$

$$\begin{array}{r}
 14 \\
 7 \overline{)98} \\
 \underline{7} \downarrow \\
 28 \\
 \underline{28} \\
 0
 \end{array}$$

$$\begin{array}{r}
 27 \\
 9 \overline{)245} \\
 \underline{18} \downarrow \\
 65 \\
 \underline{63} \\
 2
 \end{array}$$

$$8)123$$



1) whole number

2) quotient

3) multiplication

4)  $204 \div 12 = 17$

$20.4 \div 1.2 = 17$

$2.04 \div .12 = 17$

5)  $216 \div 3 = 72$

$21.6 \div 0.3 = 72$

$2.16 \div 0.03 = 72$

6)  $420 \div 70 = 6$

$42.0 \div 7.0 = 6$

$4.20 \div .70 = 6$

7)  $5.6 \div 0.8 = 7$

8)  $1.8 \div 0.6 = 3$

9)  $0.90 \div .30 = 30$

10) 
$$\begin{array}{r} 9 \\ 0.545 \\ \underline{-45} \\ 0 \end{array}$$

11) 
$$\begin{array}{r} 5 \\ 0.28 \overline{) 1.40} \\ \underline{-140} \\ 0 \end{array}$$

12) 
$$\begin{array}{r} 3.4 \\ 6 \overline{) 20.4} \\ \underline{-18} \\ 24 \\ \underline{-24} \\ 0 \end{array}$$

13) 
$$\begin{array}{r} 19020200 \\ 19716.8 \overline{) 2000000} \\ \underline{-199} \\ 199 \\ \underline{-199} \\ 200 \end{array}$$

Warm-Up 2/3/05

1)

in x	out y
1	5
2	9
3	13
4	17

$(4x + 3) - 2 = y$

2)

$$\begin{array}{r} 303300 \\ 9 \overline{) 27300} \\ \underline{-27} \downarrow \\ 030 \\ \underline{-27} \downarrow \\ 30 \\ \underline{-27} \\ 3 \end{array}$$

3)

$$\begin{array}{r} 2469230 \\ 1.3 \overline{) 32.100000} \\ \underline{-26} \downarrow \\ 61 \\ \underline{-52} \downarrow \\ 90 \\ \underline{-78} \downarrow \\ 120 \\ \underline{-117} \downarrow \\ 30 \\ \underline{-26} \downarrow \\ 40 \\ \underline{-39} \downarrow \\ 10 \end{array}$$

# Warm-Up

12/7/05

1) Find all the factors of

(24)

24, 16, 33,  
8, 4, 12

(16)

4, 3, 18,  
16

(15)

15, 1, 3, 5

2)  $\overline{) 152222}$

$\overline{) 1390.000}$

$\begin{array}{r} \underline{-9} \downarrow \\ 47 \\ \underline{-45} \downarrow \\ 20 \\ \underline{-18} \downarrow \\ 20 \\ \underline{-18} \downarrow \\ 20 \\ \underline{-18} \downarrow \\ 20 \\ \underline{-18} \\ 2 \end{array}$

← stop at thousandths

3)  $\overline{) 8.}$

$\overline{) 1.089.000}$   
 $\underline{-864}$

① a number is divisible by 2 if the last digit is an even number.

364	723
-----	-----

yes no

② a number is divisible by 3 if the sum of the digits is divisible by 3.

203	204
-----	-----

no yes

③ a number is divisible by four if the last two digits form a number divisible by 4.

203	204
-----	-----

yes no

④ a number is divisible by 5 if the last digit is 0 or 5.

113	115
-----	-----

no yes

⑤ a number is divisible by 6 if the number is divisible by 2 and 3.

336	203
-----	-----

yes no

b) a number is divisible by 9 if the sum of the digits is divisible by 9

532	999
no	yes

d) a number is divisible by 10 if the last digit is 0.

650	923
yes	no

pg 254 and 255  
Chapter 18  
2/7/05  
even only

2) 10 = divisible by 10

4) 30 = divisible by 3, 5, 6, 10

6) 72 = divisible by 3, 3, 6, 9

8) 45 = divisible by 4, 5, 3

10) 130 = divisible by 3, 5, 10

12) 309 = divisible by 3

14) 519 = divisible by 3

16) 2604 = divisible by 4, 3, 2

18) 3,956 = divisible by 2, 3, 4, 6

20) 1896 = divisible by 3, 2, 6

22) 1985 = no

24) 1776 = yes

26) 1700 = no

28) False. 9 is bigger than three, so the

numbers that are divisible by three

are more frequent than numbers

divisible by 9.

30) False. Numbers divisible by 4 are every 4 numbers, and even numbers are every other number.

32) No, 9 doesn't go into 118 evenly, because the sum of the digits is 10, and 10 isn't divisible by 9.

34) 30, 2 goes into it because 0 is even, 3 goes into it because  $2+0=3$ , 5 goes into it because it ends with 0, and the same with 10.

36) False. 9 is bigger than three, so the numbers that are divisible by three are more frequent than numbers divisible by 9.

Warm-Up  
2/8/05  
Mardi Gras

1) Tell me what a "factor" is.  
• A factor is a number that you multiply by another number to get a product.  
example:  $6 \times 5 = 30$   
                  ↑     ↑     ↑  
                  factor factor product

2) Tell me what a "Multiple" is.  
• A multiple is the number you get when you multiply a certain number by any other number.  
example: multiples of 3:  
 $4 \times 3 = 12 \leftarrow$  multiple  
 $5 \times 3 = 15 \leftarrow$  multiple  
 $6 \times 3 = 18 \leftarrow$  multiple

# Warm-Up

2/9/05

<p>1) <math>\frac{16}{24}</math></p> <p style="text-align: right;">0.666...</p> $\begin{array}{r} 24 \overline{) 16.000} \\ \underline{-144} \phantom{0} \\ 160 \\ \underline{-144} \phantom{0} \\ 160 \\ \underline{-144} \\ 16 \end{array}$	<p><math>\frac{3}{4}</math></p> <p style="text-align: right;">0.75</p> $\begin{array}{r} 4 \overline{) 3.00} \\ \underline{-28} \phantom{0} \\ 20 \\ \underline{-20} \\ 0 \end{array}$	<p><math>\frac{10}{100}</math></p> <p style="text-align: right;">0.1</p> $\begin{array}{r} 100 \overline{) 10.0} \\ \underline{-100} \\ 0 \end{array}$	<p><math>\frac{7}{28}</math></p> <p style="text-align: right;">0.25</p> $\begin{array}{r} 28 \overline{) 7.00} \\ \underline{-56} \phantom{0} \\ 140 \\ \underline{-140} \\ 0 \end{array}$	<p><math>\frac{12}{24}</math></p> <p style="text-align: right;">0.5</p> $\begin{array}{r} 24 \overline{) 12.0} \\ \underline{-120} \\ 0 \end{array}$
<p>2) <math>\frac{11}{13.25}</math></p> <p style="text-align: right;">x 5</p> $\begin{array}{r} 66.25 \end{array}$	<p style="text-align: right;">.013</p> <p style="text-align: right;">x .18</p> $\begin{array}{r} 0.26 \\ + 0.130 \\ \hline 0.1560 \end{array}$	<p style="text-align: right;">1.32</p> <p style="text-align: right;">x .05</p> $\begin{array}{r} 660 \\ + 0000 \\ \hline 0.660 \end{array}$		

- 1) ceramic = 3
- 2) glass = 5
- 3) glass = 10
- 4) wood = 6
- 5) silver = 6

3

XXX

XXX

XXX

XXX

XXX

5

00000

00000

00000

2

XX

XX

XX

XX

XX

XX

XX

7

0000000

0000000



- a) 14
- b) 20
- c) 16
- d) 12
- e) 12
- f) 18
- 1) 4, 8, 12, 16, 20, 24
- 2) 5, 10, 15, 20, 25, 30
- 3) 6, 12, 18, 24, 30, 36
- 4) 8, 16, 24, 32, 40, 48
- 5) 9, 18, 27, 36, 45, 54
- 6) 6
- 7) 21
- 8) 18
- 9) 60
- 10) 40
- 11) ceramic = 3  
glass = 8
- 12) glass = 10  
wooden = 6  
silver = 5

# Warm-Up 2/10/05

1) Least common multiple

$$3, 7 = 21 \quad 2, 8, 10 = 40 \quad 5, 10 = 10$$

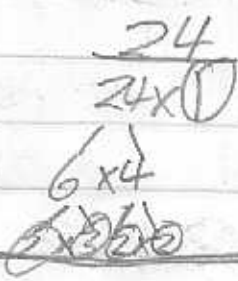
2)  $23.45 \times 3.5 = 82.075$

$$\begin{array}{r} \overset{1}{2} \overset{1}{3} \overset{1}{4} \overset{1}{5} \\ 23.45 \\ \times 3.5 \\ \hline 11725 \\ + 70350 \\ \hline 82075 \end{array}$$

3)  $55 = n - 21 \quad n = \underline{56}$

$$\begin{array}{r} + 35 \\ 21 \\ \hline 56 \end{array} \quad \begin{array}{r} \textcircled{1} 56 \\ 21 \\ \hline 35 \end{array}$$

4) factor tree for:



$$2) 32 = 8, 4, 16, 3, 1, 32$$

$$4) 21 = 3, 7, 21, 1$$

$$6) 100 = 25, 2, 4, 50$$

$$100, 1, 10, 20, 5$$

$$8) 42 = 42, 1, 7, 6$$

$$2, 21$$

$$10) 5, 2, 10, 1$$

$$12) 14, 6 = 3,$$

Warm-Up

2/14/05

prime: age 11

1) circle the primes

3, 17, 21, 22, 39

2) circle the squares

3, 6, 9, 12, 14, 16, 24, 25

3) Seventeen people were on the bus, Nine more got on, then some more got off, and finally 6 more got on, Write an equation.

$$(17+9)-n+6=n$$

4) circle the composites

1, 17, 19, 21, 19, 3, 21, 10, 15, 11

prime: a number that, in multiplication, can only be made by multiplying itself by one.

composite: a number that has more than two factors.

square: the product of a number times itself.

### Quick Review 2/16/05

$$1) 10 \times 1 = 10$$

$$2) 10 \times 10 = 100$$

$$3) 10 \times 10 \times 10 = 1,000$$

$$4) 10 \times 10 \times 10 \times 10 = 10,000$$

$$5) 10 \times 10 \times 10 \times 10 \times 10 = 100,000$$

exponent: shows how many times a number is used as factor

base: number

square number: product of number times itself

$$100 = 10 \times 10 = 10^2$$

product      factor      factor      base      exponent

Checks

2/16/05

- 1)  $100 = 10^2$
- 2)  $100,000 = 10^5$
- 3)  $10,000 = 10^4$
- 4)  $1,000,000 = 10^6$
- 5)  $10,000,000 = 10^7$
- 6) 100
- 7) 10,000
- 8) 10
- 9) 100,000
- 10) 1,000
- 11) 1,000 =  $10^3$
- 12)  $100,000,000 = 10^8$
- 13)  $1,000,000,000 = 10^9$
- 14)  $10 = 10^1$
- 15) 1,000,000
- 16) 10,000,000
- 17) 100,000,000
- 18) 1,000,000,000
- 19)  $n=3$
- 20)  $n=10,000$
- 21)  $n=10$
- 22)  $n=4$
- 23)  $n=100,000$
- 24)  $n=10$

- 25) =
- 26) <
- 27) =
- 28) <
- 29) >
- 30) >

34) \$290  
 35) \$26.50  
 \$ 4.36  
 + \$3.55  
 \$34.41  
 \$40.39

$\begin{matrix} 11 \\ \$34.41 \\ + \$5.98 \\ \hline \$40.39 \end{matrix}$

26) >  
 27) =

Warm-Up 2/17/05

Write each expression as an exponent

1)  $8 \times 8 \times 8 \times 8 = 8^4$

2)  $10,000 = 10^4$

3)  $5 \times 5 \times 5 \times 5 \times 5 = 5^5$

4)  $(7 \times 7) \times 7 = 7^3$

Equal factors of:

1)  $64 = 8 \times 8$

2)  $9^4 = 9 \times 9 \times 9 \times 9$

3)  $6^3 = 6 \times 6 \times 6$

Label this equation

$81 = 9 \times 9 = 9^2$   
product      factor      factor      base      exponent

$\frac{27}{27 \times 1}$   
1  
9 x 3  
1  
3 x 3  
 $3 \times 3 \times 3 = 3^3$

$\frac{40}{1}$   
2 x 20  
1 1 1  
4 x 5  
2 2

$\frac{360}{1}$   
10 x 36  
1 1  
5 2 6 x 6  
1 1 1  
3 2 2 2  
 $2^3 \times 3^2 \times 5$

1)  $2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$

2)  $12 \times 12 \times 12 \quad \begin{matrix} 12 \\ \text{exponent} \end{matrix} \quad \begin{matrix} 12 \\ \text{base} \end{matrix}$

3) 
$$\begin{array}{r} 24261 \\ 32 \overline{) 900} \\ \underline{-26} \\ 61 \\ \underline{-52} \\ 99 \\ \underline{91} \\ 80 \\ \underline{-78} \\ 20 \\ \underline{-13} \\ 7 \end{array}$$

4) 
$$\begin{array}{r} 283.5 \\ 25 \overline{) 2040} \\ \underline{-192} \\ 200 \\ \underline{-192} \\ 84 \\ \underline{-72} \\ 120 \\ \underline{-120} \\ 0 \end{array}$$

5) smallest to largest

10, 8, 4, 3, 2

6) 
$$\begin{array}{r} 3433 \\ \times 1.18 \\ \hline 23961 \\ + 34230 \\ \hline 581.91 \end{array}$$

7) 
$$\begin{array}{r} 7464.2 \\ 5 \overline{) 27210} \\ \underline{-35} \\ 23 \\ \underline{-20} \\ 22 \\ \underline{-20} \\ 21 \\ \underline{-20} \\ 10 \\ \underline{-10} \\ 0 \end{array}$$

8) 
$$\begin{array}{r} 2 \\ 43 \\ \times 18 \\ \hline 00 \\ + 3010 \\ \hline 3010 \end{array}$$

Factor 36 to prime factors  

$$\begin{array}{r} 36 \\ \underline{-36 \times 1} \\ 6 \times 6 \quad 3 \times 3 \times 2 \times 2 \\ \text{or } 2 \times 2 \times 3 \times 3 \end{array}$$





Awesome

# Twelve Problems x2

1)  $29,247 \div 27$     2)  $63,248 \div 8$     3)  $295.35 \div 6$

$$\begin{array}{r} 1083 \\ 27 \overline{) 29,247} \\ \underline{-252} \phantom{00} \\ 224 \phantom{0} \\ \underline{-216} \phantom{00} \\ 80 \phantom{0} \\ \underline{-81} \phantom{00} \\ 0 \end{array}$$

$$\begin{array}{r} 7906 \\ 8 \overline{) 63,248} \\ \underline{-56} \phantom{000} \\ 724 \phantom{0} \\ \underline{-72} \phantom{00} \\ 48 \phantom{0} \\ \underline{-48} \phantom{00} \\ 0 \end{array}$$

$$\begin{array}{r} 4589 \\ 6 \overline{) 295.35} \\ \underline{-24} \phantom{00} \\ 55 \phantom{0} \\ \underline{-30} \phantom{00} \\ 25 \phantom{0} \\ \underline{-24} \phantom{00} \\ 10 \phantom{0} \\ \underline{-6} \phantom{00} \\ 45 \phantom{0} \\ \underline{-45} \phantom{00} \\ 0 \end{array}$$

4) Prime factorization of 55    5) Prime factorization of 54

$$\begin{array}{l} 55 \\ \hline 55 \times 1 \\ \hline 5 \times 11 \end{array}$$

$$\begin{array}{l} 54 \\ \hline 54 \times 1 \\ \hline 9 \times 6 \\ \hline 3 \times 3 \times 2 \times 3 \end{array}$$

$$\begin{array}{r} 1236 \\ 28 \overline{) 28,420} \\ \underline{-23} \phantom{00} \\ 54 \phantom{0} \\ \underline{-42} \phantom{00} \\ 120 \phantom{0} \\ \underline{-129} \phantom{00} \\ 0 \end{array}$$

$$\begin{array}{r} 1236 \\ 28 \overline{) 28,420} \\ \underline{-23} \phantom{00} \\ 54 \phantom{0} \\ \underline{-42} \phantom{00} \\ 120 \phantom{0} \\ \underline{-129} \phantom{00} \\ 0 \end{array}$$

$$\begin{array}{r} 3826799 \\ 13 \overline{) 38,267,990} \\ \underline{-13} \phantom{000} \\ 2507 \phantom{00} \\ \underline{-169} \phantom{000} \\ 838 \phantom{00} \\ \underline{-659} \phantom{000} \\ 179 \phantom{00} \\ \underline{-13} \phantom{000} \\ 659 \phantom{00} \\ \underline{-659} \phantom{000} \\ 0 \end{array}$$

Write as decimal:  $\frac{25}{100}$ ,  $\frac{35}{100}$ ,  $\frac{7}{1000}$

0.25    0.35    0.007

$$\begin{array}{r} 0.25 \\ 100 \overline{) 25.00} \\ \underline{-20} \phantom{00} \\ 500 \phantom{0} \\ \underline{-500} \phantom{00} \\ 0 \end{array}$$

$$\begin{array}{r} 0.35 \\ 100 \overline{) 35.00} \\ \underline{-30} \phantom{00} \\ 500 \phantom{0} \\ \underline{-500} \phantom{00} \\ 0 \end{array}$$

$$\begin{array}{r} 0.007 \\ 1000 \overline{) 7.000} \\ \underline{-7} \phantom{000} \\ 0 \end{array}$$

$$\begin{array}{r} 0.007 \\ 1000 \overline{) 7.000} \\ \underline{-7} \phantom{000} \\ 0 \end{array}$$

# Twelve Problems x 2

(continued)

9)  $423,914 \div 7$

$$\begin{array}{r} 60559 \text{ r}1 \\ \overline{)423,914} \\ \underline{42} \phantom{00} \\ 009 \phantom{00} \\ \underline{-35} \phantom{00} \\ 4 \phantom{00} \\ \underline{35} \phantom{00} \\ 04 \phantom{00} \\ \underline{-63} \phantom{00} \\ 1 \phantom{00} \end{array}$$

$$\begin{array}{r} 60559 \text{ r}1 \\ \overline{)423,914} \\ \underline{42} \phantom{00} \\ 039 \phantom{00} \\ \underline{-35} \phantom{00} \\ 4 \phantom{00} \\ \underline{35} \phantom{00} \\ 04 \phantom{00} \\ \underline{-63} \phantom{00} \\ 9 \phantom{00} \end{array}$$

10)  $519,320 \div 6$

$$\begin{array}{r} 86553 \\ \overline{)519,320} \\ \underline{48} \phantom{00} \\ 39 \phantom{00} \\ \underline{-36} \phantom{00} \\ 33 \phantom{00} \\ \underline{-30} \phantom{00} \\ 32 \phantom{00} \\ \underline{-30} \phantom{00} \\ 20 \phantom{00} \\ \underline{-18} \phantom{00} \\ 2 \phantom{00} \end{array}$$

$$\begin{array}{r} 86,553 \\ \overline{)519,320} \\ \underline{48} \phantom{00} \\ 39 \phantom{00} \\ \underline{-36} \phantom{00} \\ 33 \phantom{00} \\ \underline{-30} \phantom{00} \\ 32 \phantom{00} \\ \underline{-30} \phantom{00} \\ 20 \phantom{00} \\ \underline{-18} \phantom{00} \\ 2 \phantom{00} \end{array}$$

11)  $254$

$$\begin{array}{r} 254 \\ \overline{)38,14} \\ \underline{30} \phantom{00} \\ 81 \phantom{00} \\ \underline{-75} \phantom{00} \\ 64 \phantom{00} \\ \underline{-60} \phantom{00} \\ 4 \phantom{00} \end{array}$$

25.4

$$\begin{array}{r} 25.4 \\ \overline{)38,14} \\ \underline{30} \phantom{00} \\ 81 \phantom{00} \\ \underline{-75} \phantom{00} \\ 64 \phantom{00} \\ \underline{-60} \phantom{00} \\ 4 \phantom{00} \end{array}$$

12)  $23 \times 8 = 64$

$$2 \times 2 \times 2 = 8 \quad 8 \times 8 = 64$$

$$\underbrace{2 \times 2 \times 2}_{4} \times 2 = 8$$

$$2 \times 2 \times 2 = 8 \quad 8 \times 8 = 64$$

$$\underbrace{2 \times 2 \times 2}_{4} \times 2 = 8$$

Warm-Up 2/24/05

$$\begin{array}{r} 1) \quad 672.87 \\ 63 \overline{) 42,391.00} \\ \underline{-3980} \phantom{0} \\ 459 \phantom{0} \\ \underline{-441} \phantom{0} \\ 181 \phantom{0} \\ \underline{-126} \phantom{0} \\ 550 \phantom{0} \\ \underline{-504} \phantom{0} \\ 460 \phantom{0} \\ \underline{-441} \phantom{0} \\ 19 \end{array}$$

$$\begin{array}{r} 2) \quad 10.94 \\ 1.3 \overline{) 14.230} \\ \underline{-13} \phantom{0} \\ 12 \phantom{0} \\ \underline{-0} \phantom{0} \\ 123 \phantom{0} \\ \underline{-117} \phantom{0} \\ 60 \phantom{0} \\ \underline{-52} \phantom{0} \\ 8 \end{array}$$

Note to self:

I think long division is horrible, terrible, annoying, and a pain in the neck. When I do it I must remember to check my multiplication. It is a hassle, but it could help me go to college someday.

D. M. S. Ch. B.

Draculats

Mother

Sucks

chicken

Blood

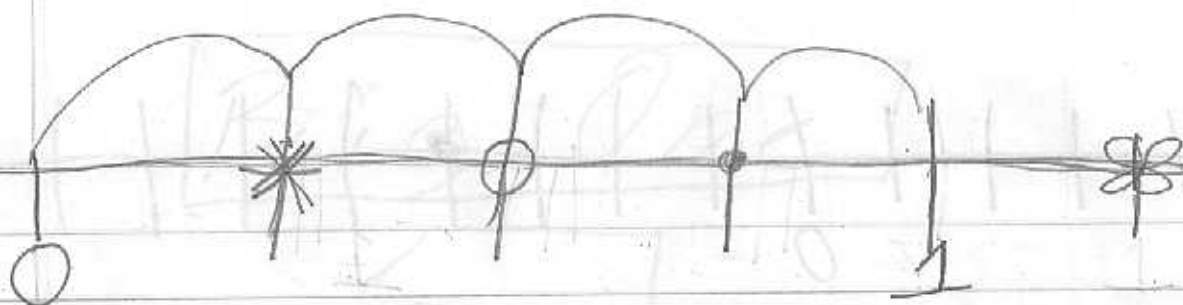
Divide

Multiply

subtract

check

Bring Down

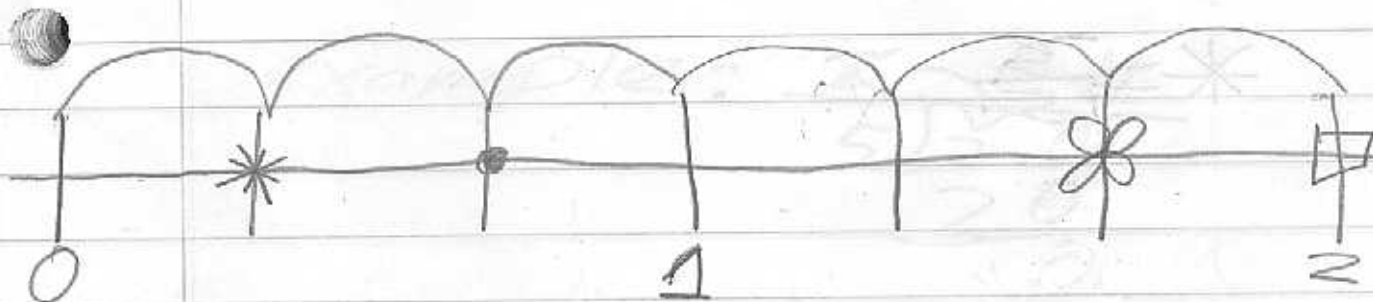


$$\frac{1}{4} = *$$

$$\frac{2}{4} = o$$

$$\frac{3}{4} = \bullet$$

$$\frac{5}{4} \text{ or } \frac{1}{4} = \otimes$$

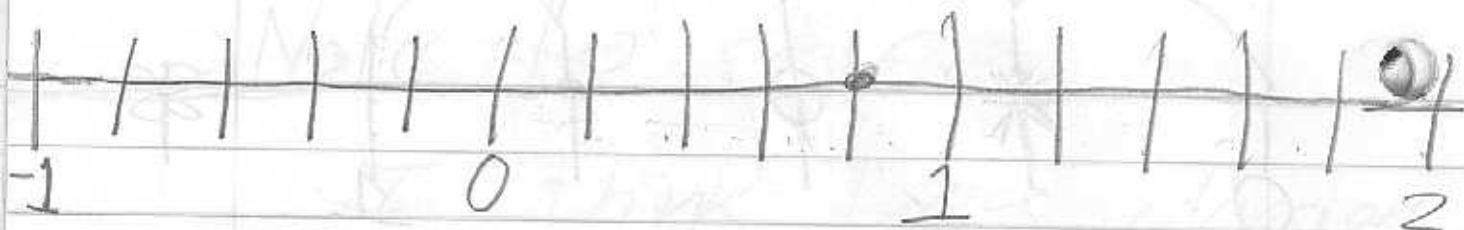


$$\frac{2}{3} = \bullet$$

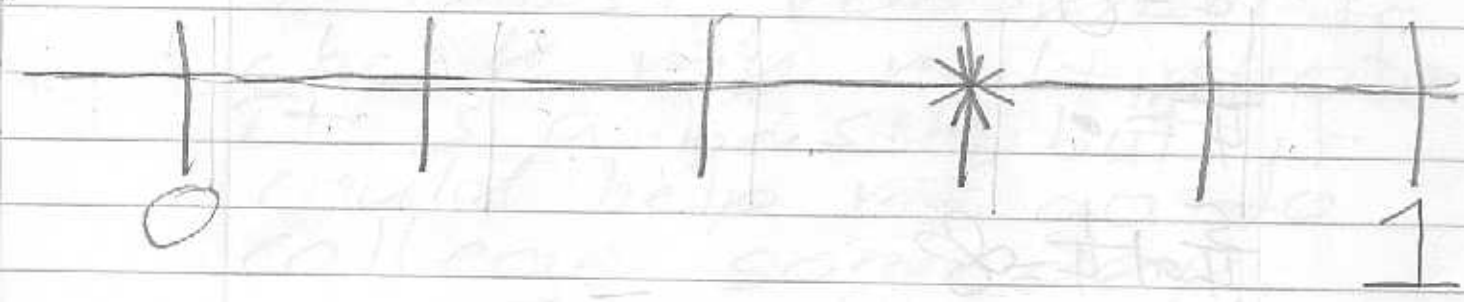
$$\frac{1}{3} = *$$

$$\frac{2}{3} \text{ or } \frac{5}{3} = \otimes$$

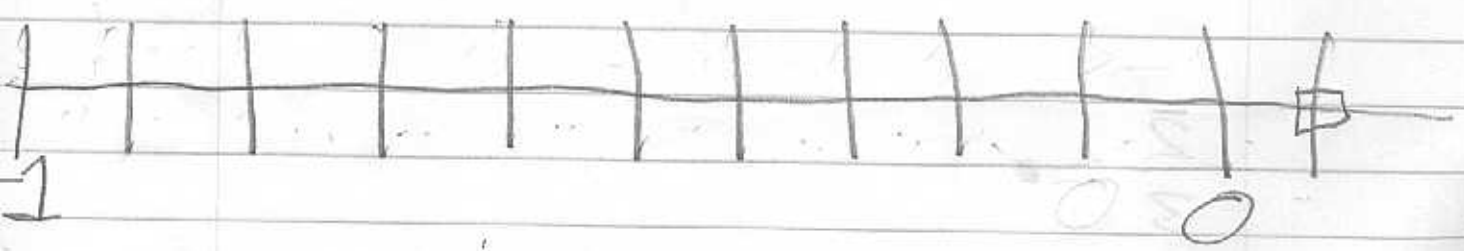
$$\frac{3}{3} \text{ or } \frac{6}{3} = \square$$



$$\bullet = \frac{4}{5}$$

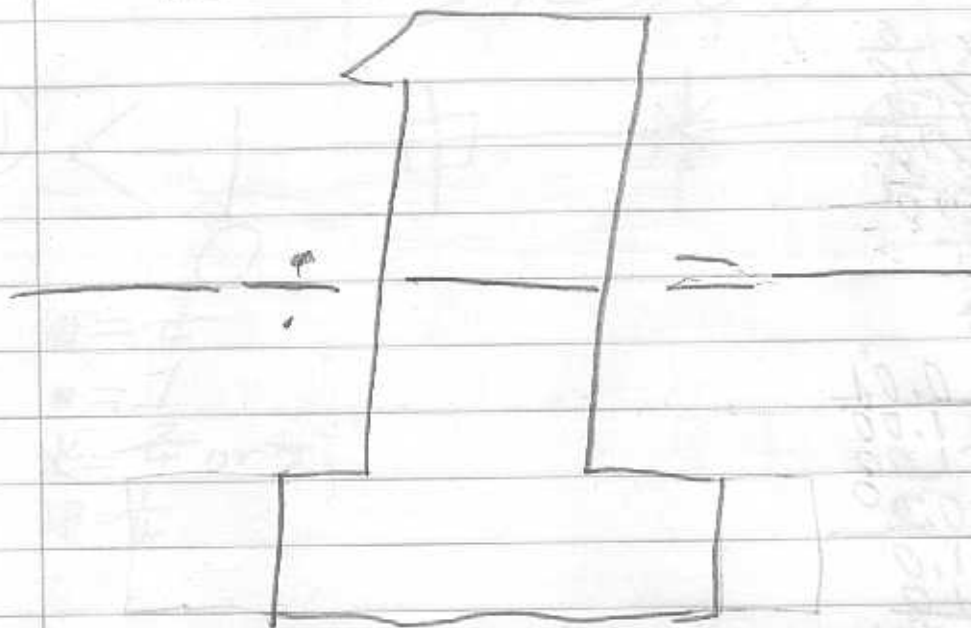


$$* = \frac{3}{5}$$



$$\square = \frac{1}{10}$$

# Big One



example:  $\frac{2.0}{5} = 0.4$

$$\begin{array}{r} 2.0 \\ 5 \overline{) 2.0} \\ \underline{20} \\ 0 \end{array}$$

$$\frac{5}{3}$$

pgs 281  
and 282  
even only  
2-30  
2/24/09

$$2) 0.6, \frac{6}{10}$$

$$4) 0.9, \frac{9}{10}$$

$$6) 0.8, \frac{8}{10}$$

$$8) \frac{63}{100}$$

$$10) \frac{425}{1000}$$

$$12) \begin{array}{r} 0.01 \\ 100 \overline{) 1.00} \\ \underline{-1.00} \\ 0 \end{array}$$

$$14) \begin{array}{r} 0.20 \\ 5 \overline{) 1.0} \\ \underline{-1.0} \\ 0 \end{array}$$

$$16) \begin{array}{r} 0.375 \\ 8 \overline{) 3.000} \\ \underline{-24} \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

$$18) 0.75, \frac{75}{100}$$

$$20) 0.25, \frac{25}{100}$$

$$22) \frac{8}{10}$$

$$24) \frac{9}{10}$$

$$26) \frac{33}{100}$$

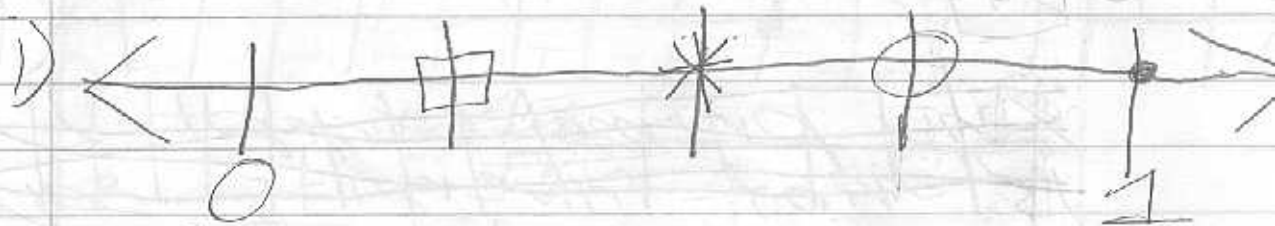
$$28) \begin{array}{r} 0.7 \\ 10 \overline{) 7.0} \\ \underline{-7.0} \\ 0 \end{array}$$

$$30) \begin{array}{r} 8.8 \\ 9 \overline{) 4.0} \\ \underline{-40} \\ 0 \end{array}$$



# Warm-Up

2/25/05



$$\oplus = \frac{3}{4}$$

$$\bullet = 1$$

$$* = \frac{7}{4} \text{ or } \frac{1}{2}$$

$$\boxplus = \frac{1}{4}$$



$$\oplus = 2 \text{ or } \frac{8}{4}$$

$$\bullet = \frac{6}{8} \text{ or } \frac{3}{4}$$

$$* = \frac{7}{8} \text{ or } \frac{1}{4}$$

$$\boxplus = \frac{-4}{8} \text{ or } \frac{-1}{2}$$

3)

$$\textcircled{1} \begin{array}{|c|} \hline 11 \\ \hline 24 \\ \hline \end{array}$$

~~Handwritten text, possibly a list or notes, which has been crossed out with multiple horizontal lines.~~

$$2) \frac{2}{6} \div \boxed{\frac{2}{2}} = \frac{1}{3}$$

$$3) \frac{12}{16} \div \boxed{\frac{4}{4}} = \frac{3}{4}$$

# Warm-Up 2/28/05



$$\bullet = 1\frac{3}{2} \text{ or } 1\frac{1}{2}$$

2) What is the value of 35

$$3 \times 3 \times 2 = 27 \quad 35 = 27$$

3) Simplest form of

$$\frac{5}{10} = \frac{1}{2}, \frac{16}{24} = \frac{2}{3}, \frac{5}{8}, \frac{2}{10} = \frac{1}{5}$$

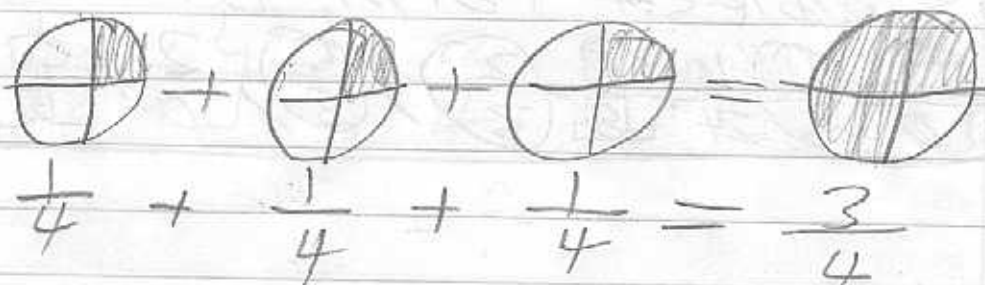
# Adding fractions

$$\frac{3}{8} + \frac{2}{8} = \frac{5}{8} \quad \frac{5}{16}$$

$$\frac{2}{12} + \frac{6}{12} + \frac{1}{12} = \frac{9}{12} \quad \frac{9}{12}$$

$$\frac{1}{9} + \frac{2}{9} = \frac{3}{9}$$

$$\frac{7}{16} + \frac{1}{16} = \frac{8}{16}$$



like fractions, just add numerator,

IF = JAN

# Adding Fractions

$$\frac{1}{4} + \frac{3}{8}$$

8

$$\begin{aligned} 4 \times 2 &= 8 \\ 8 \times 1 &= 8 \end{aligned}$$

$$\begin{array}{r} \frac{1}{4} \times \frac{2}{2} = \frac{2}{8} \\ + \frac{3}{8} \times \frac{1}{1} = \frac{3}{8} \\ \hline \frac{5}{8} \end{array}$$

$$\frac{6}{12} + \frac{3}{8}$$

24

$$\begin{aligned} 12 \times 2 &= 24 \\ 8 \times 3 &= 24 \end{aligned}$$

$$\begin{array}{r} \frac{6}{12} \times \frac{2}{2} = \frac{12}{24} \\ + \frac{3}{8} \times \frac{3}{3} = \frac{9}{24} \\ \hline \frac{21}{24} \end{array}$$

# Adding Fractions

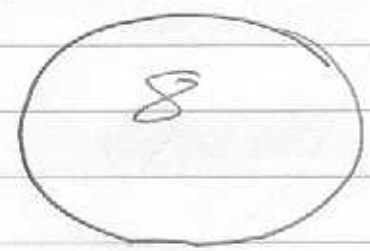
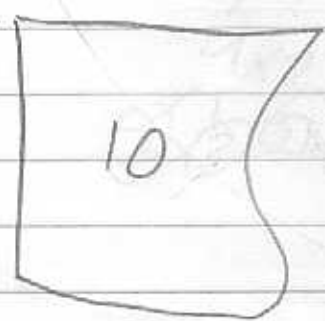
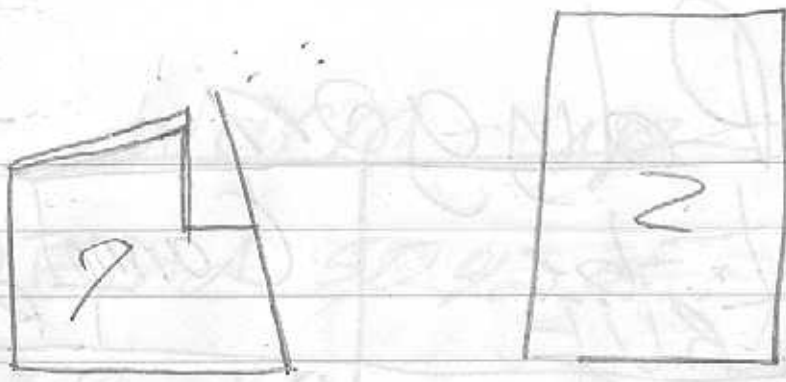
$$\frac{2}{7} + \frac{1}{3}$$

$\sqrt{\quad}$   
 $\times 3 = 11$   
 $\sqrt{\quad}$   
21

$$1 \times 3 = 21$$
$$3 \times 7 = 21$$

$$\begin{array}{r} 3 \times 3 = 9 \\ 7 \times 3 = 21 \\ + 1 \times 7 = 7 \\ 3 \times 7 = 21 \\ \hline 16 \\ 21 \end{array}$$

Like fractions  
numerator



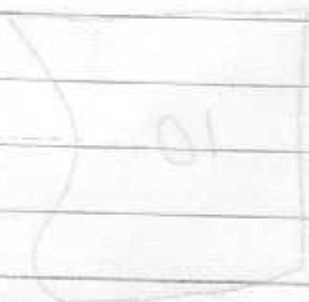
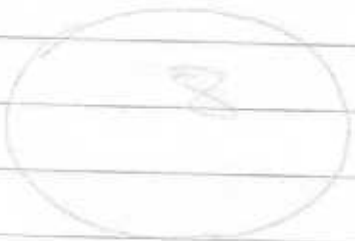
# Polygon

Must be  
TRUE

- 1) closed figure
- 2) has corners  
- vertices
- 3) three or more  
sides
- 4) only one space  
(simple shape)

Cannot be  
TRUE

- 1) has curved  
lines
- 2) has an opening
- 3) lines <sup>cross</sup> through  
middle
- 4) has lines  
sticking off <sub>of it</sub>





# Warm-up 3/1/05

1) Find 50% of:  $12 \frac{6}{9}$

$$\frac{50}{100} = \frac{1}{2}$$
$$\begin{array}{r} 12 \frac{6}{9} \\ \times \frac{1}{2} \\ \hline 34 \frac{17}{18} \\ 28 \frac{44}{18} \\ \hline \end{array}$$

2) Find 10% of:  $10 \frac{1}{100}$

$$\begin{array}{r} 10 \frac{1}{100} \\ \times \frac{1}{10} \\ \hline 500 \frac{50}{1000} \\ 1000 \frac{100}{1000} \\ \hline \end{array}$$

3) Write: as a percent

$$.67 = 67\%$$

$$.33 = 33\%$$

$$.45 = 45\%$$

$$.16 = 16\%$$

$$.7 = 70\%$$

4) Prime factors of

$$\begin{array}{r} 54 \\ \hline 54 \times \textcircled{1} \\ \hline 9 \times 6 \\ \hline \textcircled{3} \times \textcircled{3} \times \textcircled{2} \times \textcircled{3} \end{array}$$

3/1/05

# Percents

$$\textcircled{1} 58\% = \frac{58}{100} = .58$$

$$\textcircled{2} 64\% = \frac{64}{100} = .64$$

$$\textcircled{3} 5\% = \frac{5}{100} = .05$$

25% of 40%

$$\frac{25}{100} = \frac{1}{4} = 0.25$$

36% of 99 = 35.64

$$\begin{array}{r} \cancel{3} \\ 99 \\ \times 1.36 \\ \hline 1594 \\ + 2970 \\ \hline 3564 \end{array}$$

15% of 29 =

$$\begin{array}{r} 29 \\ \times 1.15 \\ \hline \end{array}$$

# Percents

3/1/05

Sales: \$100-	\$500-	\$35-	\$48-
10% off = \$90	10% off = \$450	10% off = \$31.50	10% off = \$43.20
30% off = \$70	30% off = \$350	30% off = \$24.50	30% off = \$33.60
50% off = \$50	50% off = \$250	50% off = \$17.50	50% off = \$24
\$16-	\$50-		
10% off = \$14.40	10% off = \$45		
30% off = \$11.20	30% off = \$35		
50% off = \$8	50% off = \$25		

\$500	\$35	\$35	\$48	\$48.00	\$48
<del>X .30</del>	<del>X .10</del>	<del>X .30</del>	<del>X .10</del>	- 4.80	<del>X .30</del>
0.00	00	00	00	\$43.20	00
+ 150.00	+ 350	+ 1050	+ 480		+ 1440
\$150.00	\$350	\$1050	\$480		\$1440
710		510		1	510
<del>\$48.00</del>	\$16	<del>\$18.00</del>	\$16	<del>\$16.00</del>	<del>\$16.00</del>
<del>- \$14.40</del>	<del>X .10</del>	<del>- \$1.60</del>	<del>X .30</del>	<del>- \$4.80</del>	<del>- \$4.80</del>
\$33.60	00	\$14.40		\$11.20	
	+ 1.00		+ 4.00		
	\$1.60		\$4.80		
		\$50	\$58.00		
		<del>X .30</del>	<del>- \$15.00</del>		
		00	\$35.00		
		+ 15.00			
		15.00			

3/2/05

1) Find 15% of 48    2) 25% of 36

$$\begin{array}{r}
 4 \\
 48 \\
 \times 15 \\
 \hline
 240 \\
 + 480 \\
 \hline
 \$7.20
 \end{array}$$

9

3) 35% as a decimal    4) 50% of 28

0.35

14

5) Find  $\frac{85}{100}$  as a percent    6) 0.8 as a percent

85%

80%

0.15 as a %

15%

0.05 as a %

5%

0.9 as a %

90%

$\frac{35}{100}$  as a %

35%



3/7/05

①  $\frac{30}{35} = \frac{36}{42}$     ②  $\frac{40}{64} = \frac{20}{32}$     ③  $\frac{15}{40} = \frac{3}{8}$   
 ④  $\frac{21}{49} = \frac{3}{7}$     ⑤  $\frac{15}{4} = \frac{30}{8}$

Nice job!



The craft stick calculator works because it is just another form of the big one, except it doesn't have all of the multiplication. In order to make it work, line up two popsicle sticks. Every column is a fraction. All of the fractions on the two craft sticks are equivalent. — Ronch

Adult problems!

①  $\frac{2}{5} = \frac{12}{30}$     ②  $\frac{3}{8} = \frac{18}{48}$     ③  $\frac{2}{4} = \frac{5}{30}$



## Myles interview

1) Love about math; decimal division

2) Hate about math; word problems

3) career ideas; editor.

4) unknown fact: ~~brother used to~~  
play flute has known how  
to swim for nine years

$$\begin{array}{r}
 6 \quad 2 \\
 \hline
 17 \quad 100 \\
 \swarrow \searrow \\
 1700
 \end{array}
 \qquad
 \begin{array}{r}
 4 \\
 67 \\
 \hline
 153 \\
 + 1190 \\
 \hline
 1343
 \end{array}
 \qquad
 \begin{array}{r}
 17 \quad 13 \\
 \hline
 100 \quad 79 \\
 \swarrow \searrow \\
 7900
 \end{array}$$

$$\begin{array}{r}
 6 \times 100 = 600 \\
 17 \times 100 = 1700 \\
 2 \times 17 = 34 \\
 100 \times 17 = 1700 \\
 \hline
 600 + 1700 + 34 + 1700 = 4034
 \end{array}
 \qquad
 \begin{array}{r}
 17 \times 79 = 1343 \\
 100 \times 79 = 7900 \\
 13 \times 100 = 1300 \\
 79 \times 100 = 7900 \\
 \hline
 1343 + 7900 + 1300 + 7900 = 18443
 \end{array}$$

$$\begin{array}{r}
 12100 \\
 - 1800 \\
 \hline
 10300 \\
 - 1500 \\
 \hline
 8800
 \end{array}$$

$$\begin{array}{r}
 17 \\
 \times 15 \\
 \hline
 155
 \end{array}$$

$$\begin{array}{r}
 10 \\
 \times 11 \\
 \hline
 110
 \end{array}
 \qquad
 \begin{array}{r}
 100 \\
 \times 11 \\
 \hline
 1100
 \end{array}
 \qquad
 \begin{array}{r}
 1000 \\
 \times 11 \\
 \hline
 11000
 \end{array}
 \qquad
 \begin{array}{r}
 10000 \\
 \times 11 \\
 \hline
 110000
 \end{array}$$





cluster = big bunch of data that is together  
 outlier = separate from the rest of the data  
 range = difference between least + greatest number  
 range | |  
 Summative frequency = running total of data

Mean = 10  
 Range = 6  
 Mode = 13  
 Median = 5

- 2) 1
- 3) 5
- 4) 69
- 5) 96



6) week 1 = 7  
week 3 = 5

7) 20

8) 39

9) 17

10) 12

11) 15

12) 10

13) 32

14) 23

15) 21

16) 2

17) 6

18) 9

19) \$1500

20) sign-up for field event times

Event times	Number of students	Cumulative frequency
9:30 AM	1	10
11:30 AM	3	29
1:30 PM	11	46
2:30 PM	3	64

21) 2:30 PM

22) 29

23) 64

Warm-Up 3/10/05

Find the range

1) 99, 85, 100, 78, 89

99  
+ 85  
+ 100  
+ 78  
+ 89  
583  
(22)

Mean = Average

110    96    113  
+ 90    + 85    + 89  
200    181    202

90 } 200  
110 }  
96 } 181  
85 }  
113 } 202  
89 }  
402  
181  
583

202  
+ 200  
402  
+ 181  
583

99.1600  
583.00  
- 54  
43  
42  
- 10  
32  
- 6  
40  
- 36  
4

$$\begin{array}{r}
 1 \phantom{0} \\
 1 \phantom{0} \\
 8) \overline{1,250} \\
 \underline{980} \phantom{0} \\
 + 30 \phantom{0} \\
 \hline
 2580
 \end{array}$$

$$\begin{array}{r}
 860 \\
 \hline
 3580 \\
 \underline{40} \\
 18 \\
 \hline
 18 \\
 \hline
 00
 \end{array}$$

10)

"Beware the Ides  
of March"  
Warm-Up 3/15/05

Week	Amount	CF
1	\$3.00	\$3.00
2	\$0.50	\$3.50
3	\$12.00	\$15.50
4	\$6.00	\$21.50
5	\$15.00	\$36.50

1) What is the mean amount collected?

$$\begin{array}{r} 7.30 \\ 5 \overline{) 36.50} \\ \underline{35} \downarrow \\ 15 \\ \underline{15} \downarrow \\ 00 \end{array} \quad \underline{\$7.30}$$

2) What is the range of money collected?

$$\begin{array}{r} 410 \\ \$15.00 \\ - .50 \\ \hline \$14.50 \end{array} \quad \underline{\$14.50}$$

3) Which week has an outlier?  
week 2



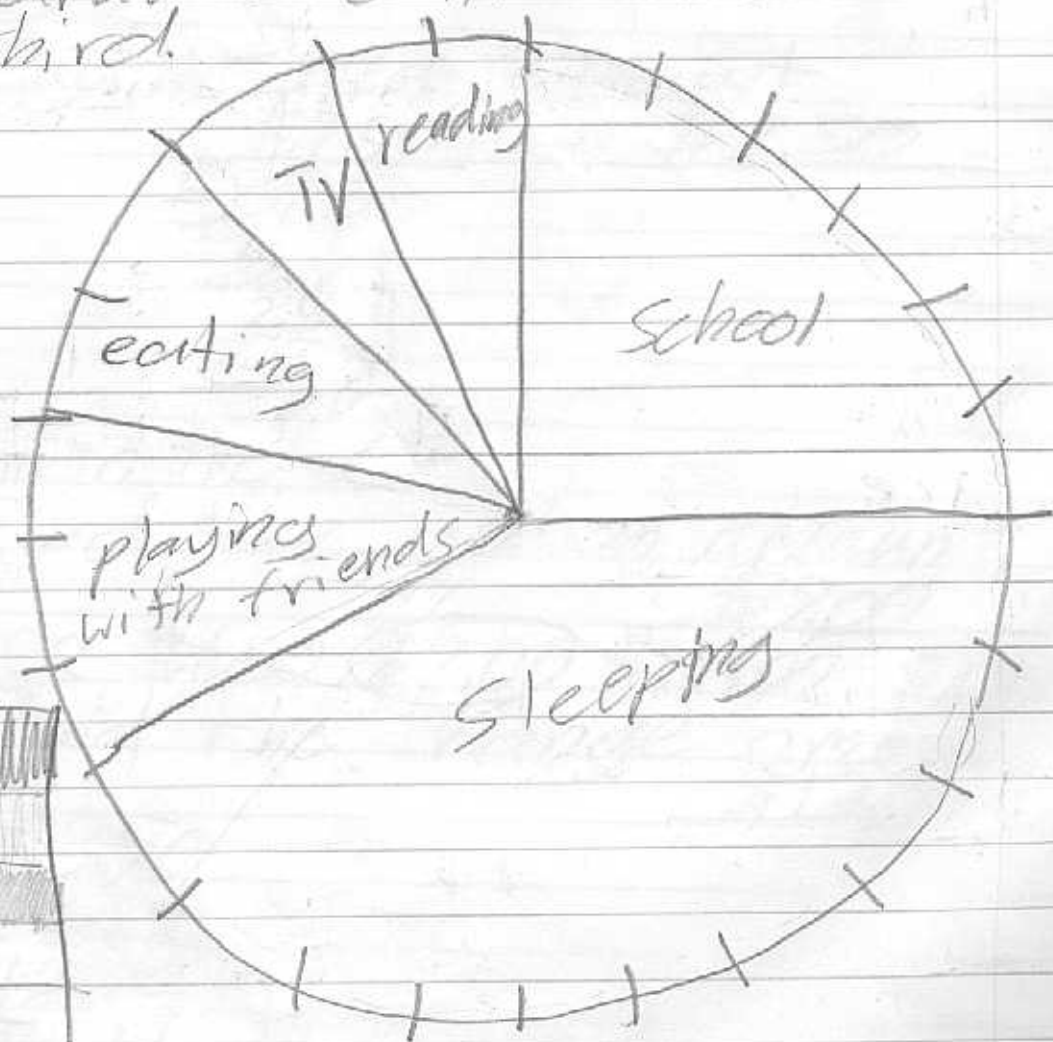
stem

1	
2	3,4,6
3	2
4	5,7
5	
6	2,7,8,8,9
7	
8	1
9	



# Circle Graph

- draw circle
- draw box for key
- eyeball center point
- divide circle into quadrants
- divide each quadrant into thirds
- erase quadrant lines
- draw one line in between each third.





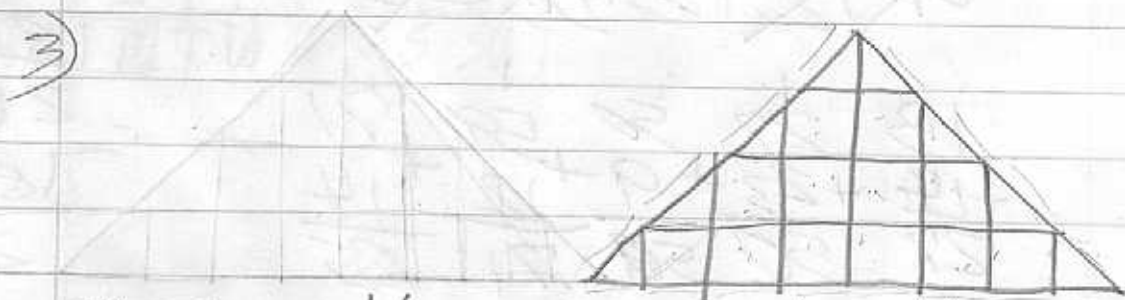
# Area and Perimeter



$$\text{area} = 13 \quad \text{perimeter} = 16$$



$$\text{area} = 30 \quad \text{perimeter} = 26$$



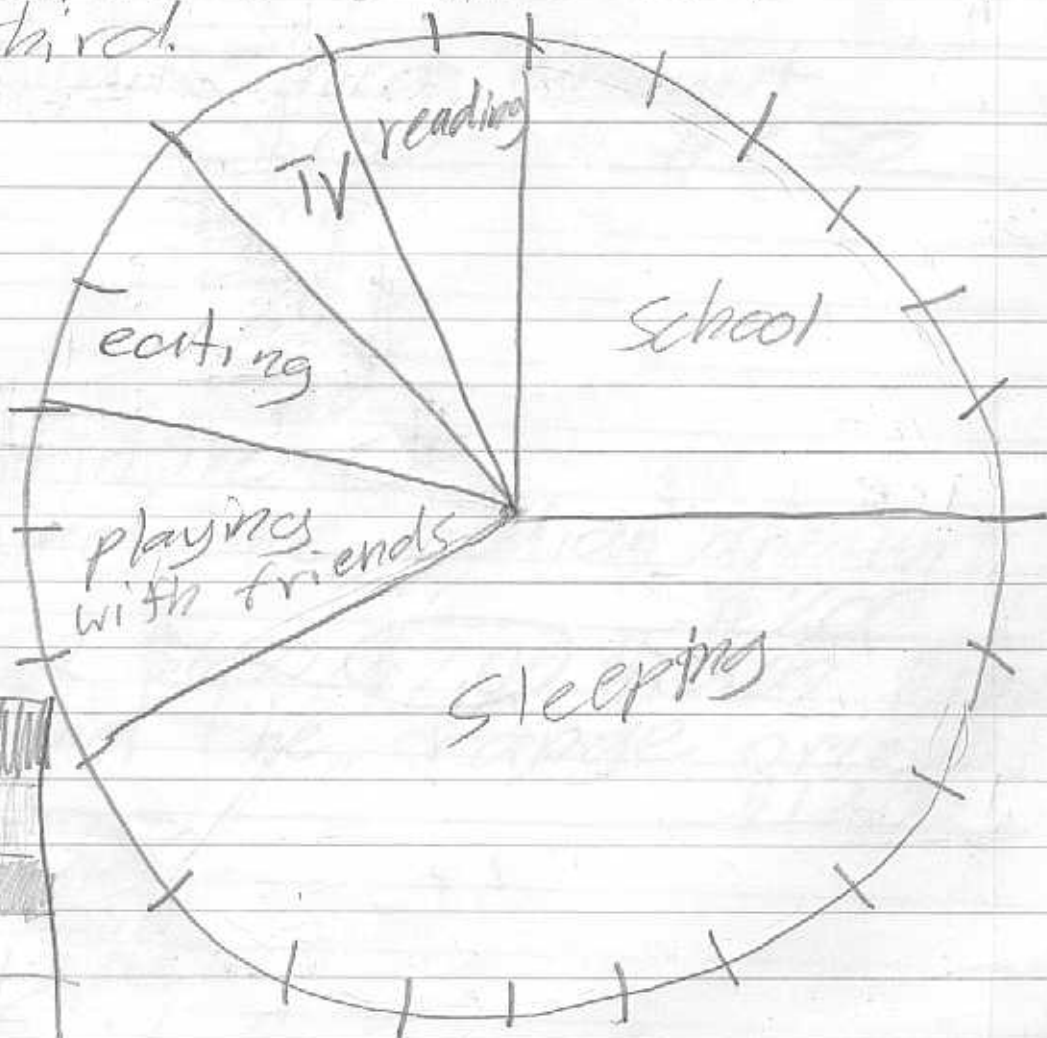
$$\text{area} = 16 \quad \text{perimeter} = 16$$



$$\text{area} = 21 \quad \text{perimeter} = 31$$

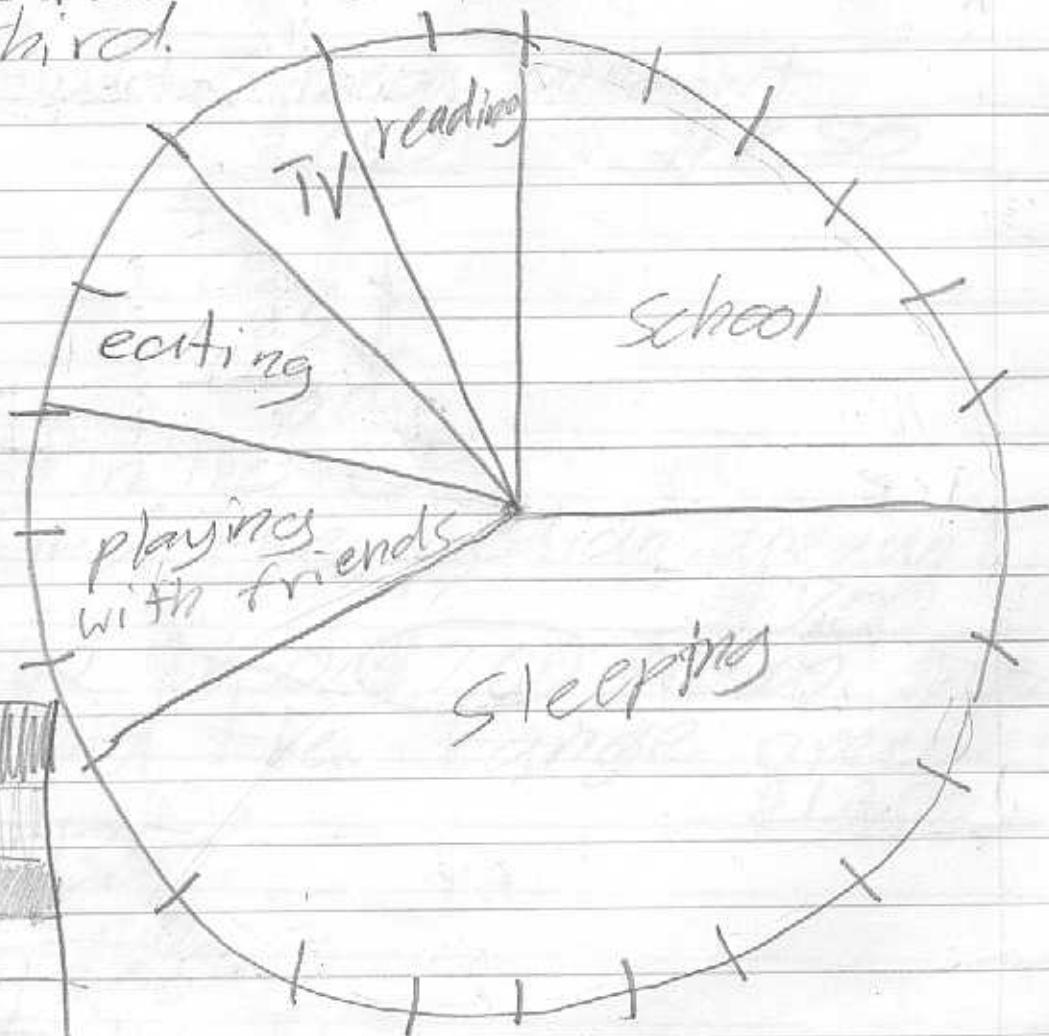
# Circle Graph

- draw circle
- draw box for key
- eyeball center point
- divide circle into quadrants
- divide each quadrant into thirds
- erase quadrant lines
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# Circle Graph

- draw circle
- draw box for key
- eyeball center point
- divide circle into quadrants
- divide each quadrant into thirds
- erase quadrant lines
- draw one line in between each third.



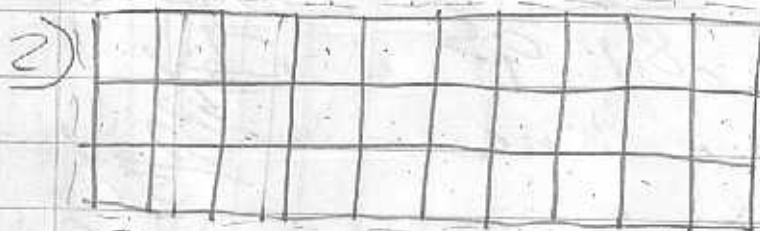
Key



# Area and Perimeter

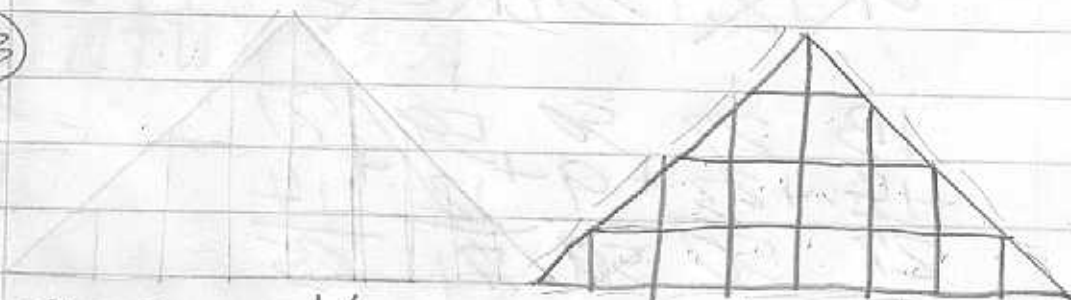


$$\text{area} = 13 \quad \text{perimeter} = 16$$



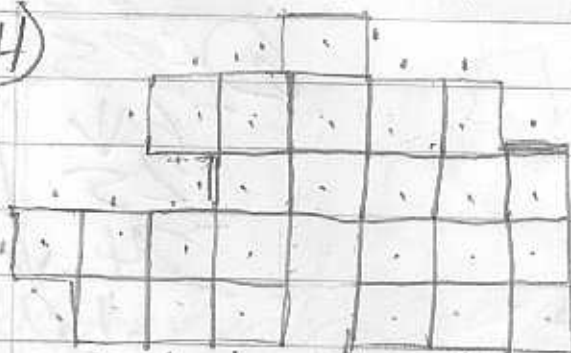
$$\text{area} = 30 \quad \text{perimeter} = 26$$

3)



$$\text{area} = 16 \quad \text{perimeter} = 16$$

4)



$$\text{area} = 24 \quad \text{perimeter} = 31$$

# Warm-Up

Find the mean, median, mode

13, 14, 23, 9, 12, 14

$$\begin{array}{r} 13 \\ + 14 \\ \hline 27 \\ 37 \\ + 23 \\ \hline 60 \\ 69 \\ + 9 \\ \hline 78 \\ 81 \\ + 12 \\ \hline 93 \\ 95 \end{array}$$

$$\begin{array}{r} 15.833^{\circ} \\ \times 60 \\ \hline 950.000 \\ - 60 \\ \hline 350 \\ - 30 \\ \hline 50 \end{array}$$

~~12, 13, 14, 23~~

$$\begin{array}{r} 13 \\ + 14 \\ \hline 27 \\ 27 \\ + 23 \\ \hline 50 \\ 50 \\ + 9 \\ \hline 59 \\ 59 \\ + 12 \\ \hline 71 \\ 71 \\ + 14 \\ \hline 85 \end{array}$$

$$\begin{array}{r} 48 \\ - 20 \\ \hline 28 \\ - 18 \\ \hline 10 \\ 20 \\ - 7 \\ \hline 13 \\ 2 \end{array}$$

mean = 14.16<sup>6</sup>  
median = 13.5  
mode = 14

$$\begin{array}{r} 14.166^{\circ} \\ \times 85 \\ \hline 85.000 \\ - 6 \\ \hline 25 \\ - 24 \\ \hline 10 \\ - 6 \\ \hline 40 \\ - 30 \\ \hline 10 \\ - 4 \\ \hline 6 \end{array}$$

# Warm-Up

Find the mean, median, mode

13, 14, 23, 9, 12, 14

$$\begin{array}{r} 13 \\ 14 \\ \hline 27 \\ 27 \\ 50 \\ 59 \\ 71 \\ \hline 85 \end{array}$$

$$\begin{array}{r} 15.8333 \\ \hline 695.000 \\ -6 \\ \hline 35 \\ -20 \\ \hline 50 \\ -48 \\ \hline 20 \\ -18 \\ \hline 2 \end{array}$$

~~12, 13, 14, 23~~

$$\begin{array}{r} 13 \\ +14 \\ \hline 27 \\ 27 \\ 50 \\ 59 \\ 71 \\ \hline 85 \end{array}$$

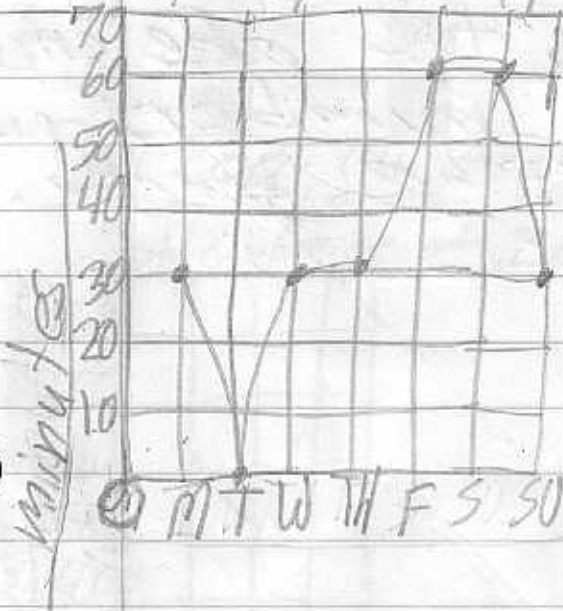
$$\begin{array}{r} 14.1666 \\ \hline 85.000 \\ -6 \\ \hline 25 \\ -24 \\ \hline 10 \\ -6 \\ \hline 40 \\ -36 \\ \hline 40 \\ -36 \\ \hline 4 \end{array}$$

mean = 14.1666  
median = 13.5  
mode = 14

# Field Trip Interval

3 1 5 1 1 6 4

3	4	9	10	11	17	21
+1	+5	+1	+1	+6	+4	3
4	9	10	11	17	21	0



chunk interval

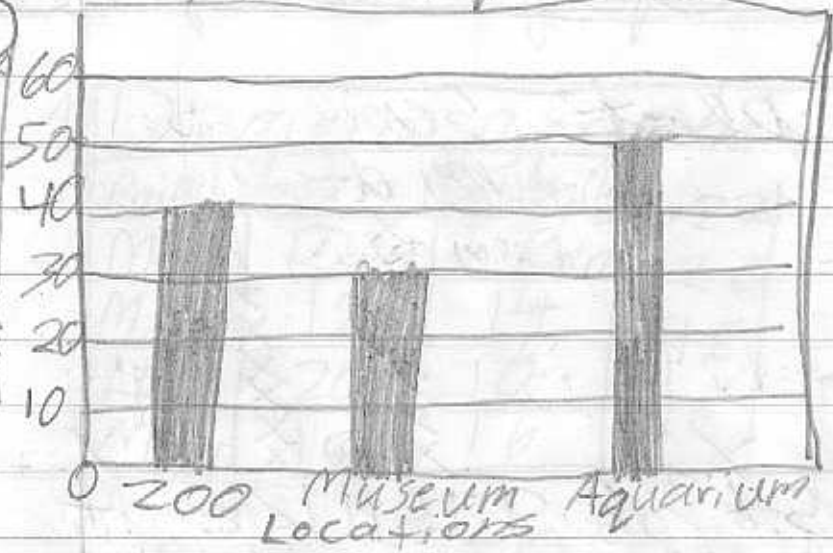
A scale is the series of numbers starting at 0 placed at fixed distances on a graph.

An interval is the difference between one number and the next on the scale.



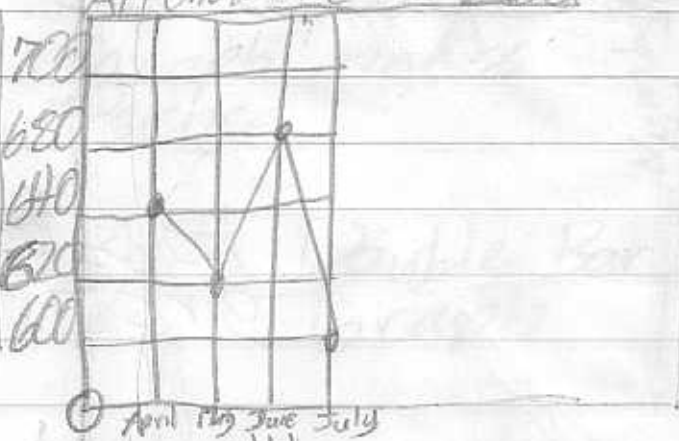
# Field Trip Ideas

Number of Students



## Attendance at Zoo

Number of People



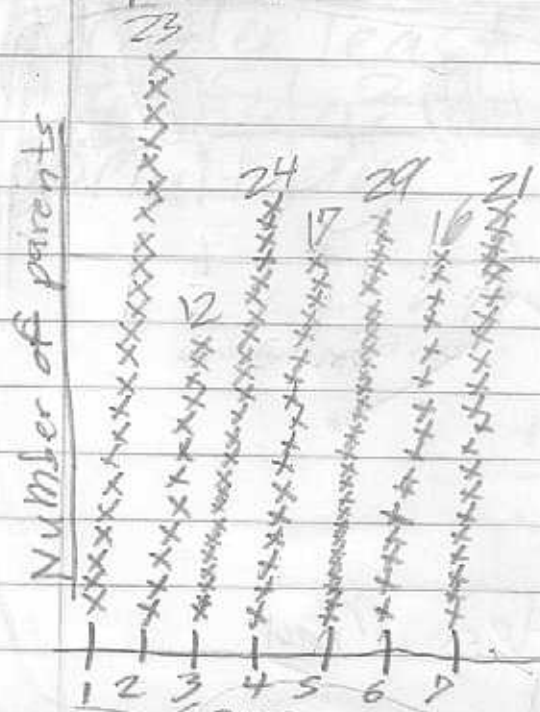
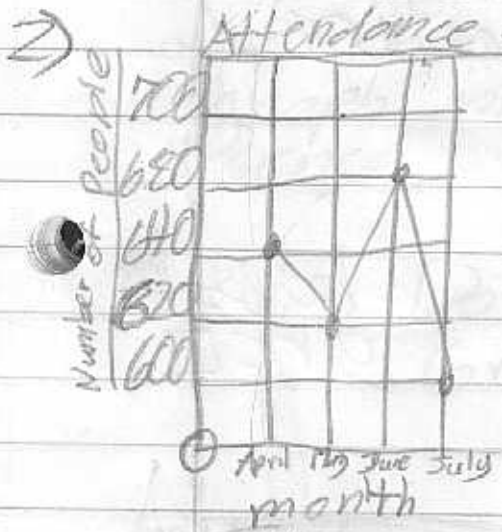
A scale is the series of numbers starting at 0 placed at fixed distances on a graph.

An interval is the difference between one number and the next on the scale.

# Field Trip Ideas



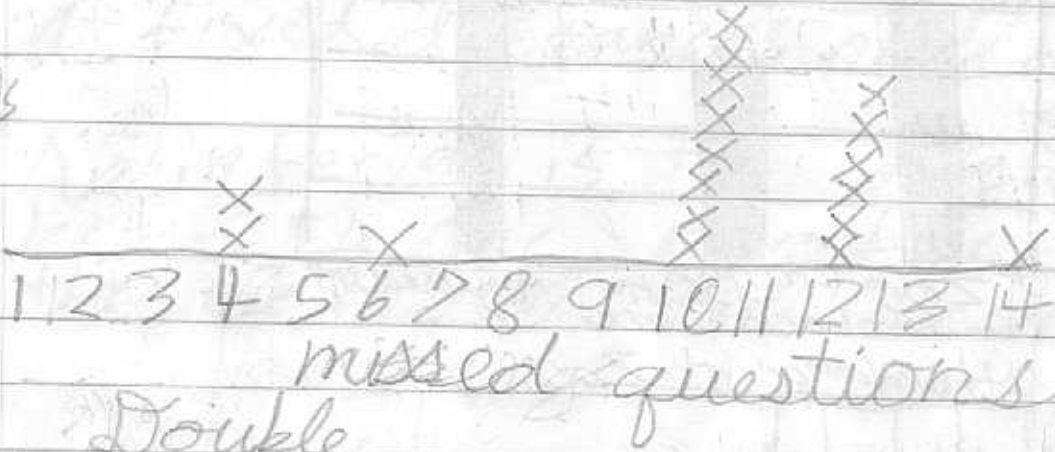
## Attendance at Zoo



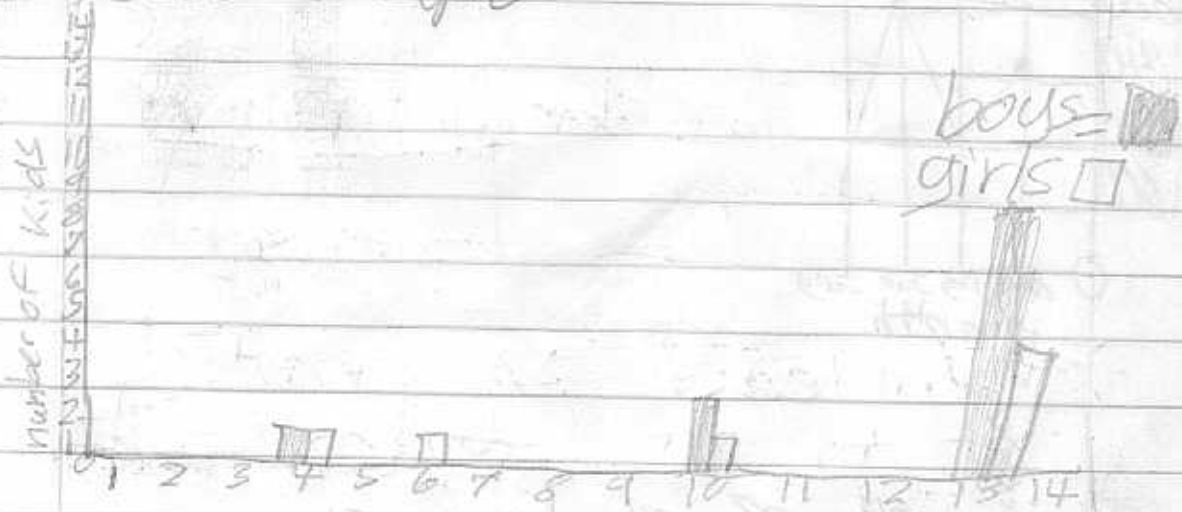
# Types of Graphs

## 1) Line plot

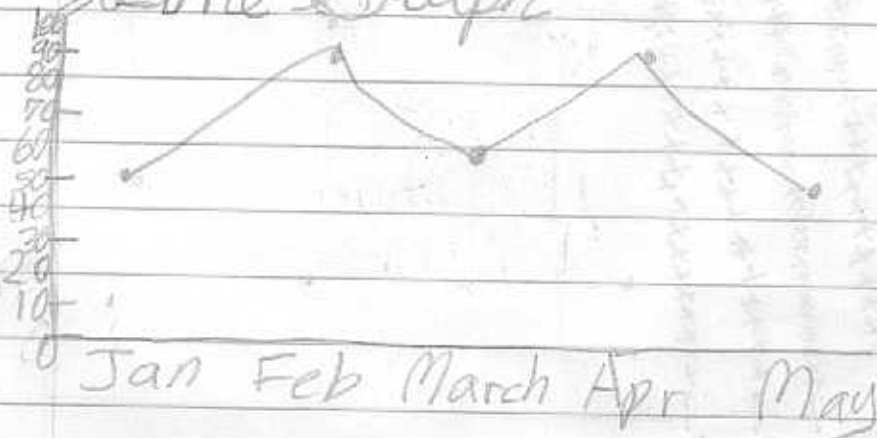
# of kids



## 2) Bar Graph



## 3) Line Graph



# Warm-Up

1) Draw a graph:

Rainy days in March, April, May			22
Month	Rain	No Rain	20
March	17	14	18
April	20	10	6
May	15	16	4

= Rain  
 = No Rain

Rainy Days in March, April, May

Choose which graph makes sense.

Double Bar Graph



2) Order least to greatest:

~~750191678~~     ~~total 14750~~

3) Multiply:

$$\begin{array}{r}
 132.2 \\
 \times 10.24304 \\
 \hline
 530.88 \\
 +1322.00000 \\
 \hline
 1364.88000
 \end{array}$$

# Negative Integers

Word of the day

Fun

• pun

• ton

• bun

• run

• sun

• done

• hun

• nur

Number of the day

5

50

500

5,000

50,000

500,000

5,000,000

50,000,000

500,000,000

5,000,000,000

50,000,000,000

500,000,000,000

5,000,000,000,000

50,000,000,000,000

- 1) Below zero
- 2) Opposite positive integer
- 3) whole number
- 4) minus sign
- 5) Higher the digits, lower the number
- 6) Digits
- 7) Below  $0^{\circ}$  is freezing
- 8) not positive
- 9) Below sea level and not in water
- 10) Add negative to positive you are subtracting
- 11) Add bigger number to negative number you get smaller number
- 12) Negative

less = left  
greater = right

# Warm Up 3/31/08

~~5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5~~

1)  $-2 + +3 = +1$

2)  $-3 + +3 = 0$

3) Show 400 ft above sea level as an integer. +400

$+7 - -2 = +5$

+++++(++)

4/4/05

1)  $+5 + -2 = +3$



2)  $+3 + -4 = -1$



3)  $+4 + -4 = 0$



4)  $+5 + -12 = -7$



5)  $-3 + -4 = -7$

1)  $4 + +1 = 3$

$-12 + -2 = -14$



3)  $+9 + -9 = 0$



4) Absolute value of  $-9$ ?

9



$$\begin{array}{l}
 1) \quad +4 - +1 = +3 \quad + + + * \\
 2) \quad -4 - +1 = -5 \quad - - - - - \\
 3) \quad -3 - +2 = -5 \quad - - - - - \\
 4) \quad +4 - +6 = -2 \quad + + + + + \quad + + + + +
 \end{array}$$

Three things I have in common with my math partner

- we are both girls
- we both like milk shakes
- we are both 11
- we were both born in 1993
- we both have brown hair
- swimming is both our favorite sport
- we don't have freckles

Warm-Up 4/6/05

$$1) +2 - 1 = +3 \quad ++ \textcircled{+}$$

$$2) -7 - +3 = -10 \quad \textcircled{-}$$

$$3) +5 + -2 = +3 \quad \textcircled{+}++$$

$$4) \begin{array}{cccccccc} -4 & -3 & -2 & -1 & 0 & +1 & +2 & +3 & +4 \\ \leftarrow & & & & & & & & \rightarrow \\ +3 & -2 & = & +5 & & & & & \textcircled{+} \end{array}$$

lose -1

win +1

Warm-Up 4/7/05

Negatives:

$$1) \text{ score is } -3 + -3 = -6$$

$$2) \text{ score is } +5 + -2 = +3$$

$$3) \text{ score is } -6 + +3 = -3$$

$$1) \text{ loss of 10 yards } -10 \quad 2) -1 - +1 = -2$$

bonus

temp at

6 am:  $-2$

\*  
10 am rise  $5$

\*  
10 pm drop

$03$

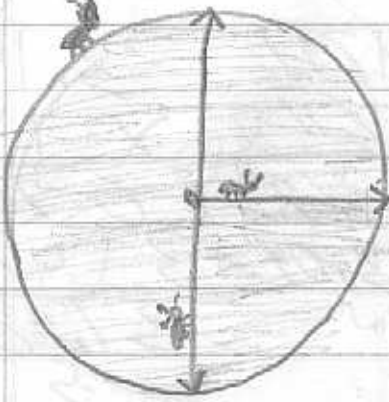
\*  
what was

temp. @  
10 pm?

$0$

$$3) -6 - +2 = -8 \quad 4) -1 - +3 = -4$$

Integer



Sir Cumference = around

Di Ameter = all the way across

Ray Dias = half way across

Circumference

$$C = d \times 3.14 \text{ or } \pi$$

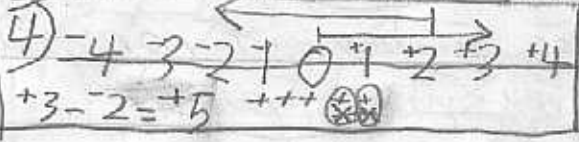
$\begin{array}{r} 22 \\ 3.14 \\ \times 2.70 \\ \hline 1570 \\ 6280 \\ + 21980 \\ \hline 29830 \end{array}$	$\begin{array}{r} 2 \\ 3.14 \\ \times 5.70 \\ \hline 1570 \\ 3140 \\ + 8820 \\ \hline 18030 \end{array}$	$\begin{array}{r} 2 \\ 3.14 \\ \times 8.80 \\ \hline 1570 \\ 6280 \\ + 21980 \\ \hline 29830 \end{array}$	$\begin{array}{r} 2 \\ 3.14 \\ \times 9.40 \\ \hline 1570 \\ 3140 \\ + 8820 \\ \hline 18030 \end{array}$	$\begin{array}{r} 2 \\ 3.14 \\ \times 3.80 \\ \hline 1570 \\ 6280 \\ + 21980 \\ \hline 29830 \end{array}$
				$\begin{array}{r} 25.748 \\ + 25.120 \\ \hline 25.748 \end{array}$

Warm-Up 4/6/05

1)  $+2 - 1 = +3$  ++ ⊗

2)  $-7 - +3 = -10$  --- ⊗

3)  $+5 + -2 = +3$  ⊕ ++



lose -1  
win +1

Warm-Up 4/7/05

Negatives:

1) score is  $-3 + -3 = -6$

2) score is  $+5 + -2 = +3$

3) score is  $-6 + +3 = -3$

1) loss of 10 yards -10

2)  $-1 - +1 = -2$

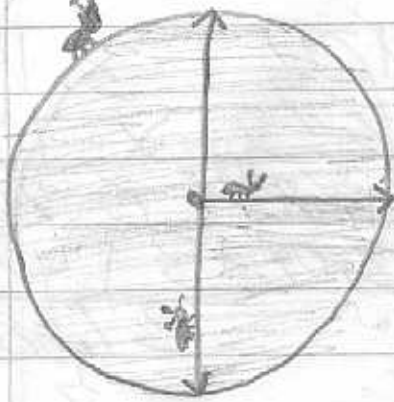
bonus

Temp at  
6 am:  $-2$   
\*  
10 am rise  $5$   
\*  
10 pm drop  $3$   
\*  
what was  
Temp. @  
10 pm?  
 $0$

3)  $-6 - +2 = -8$

4)  $-1 - +3 = -4$

Integer

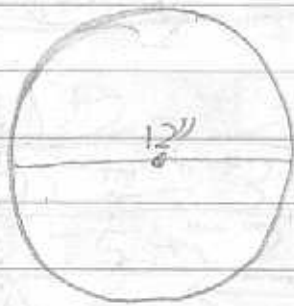


Circumference = around  
 Diameter = all the way across  
 Radius = half way across

Circumference

$$C = d \times 3.14 \text{ or } \pi = \pi r$$

$\begin{array}{r} 224 \\ 3.14 \\ \hline 62980 \\ +29830 \\ \hline 92810 \end{array}$	$\begin{array}{r} 214 \\ 3.14 \\ \hline 62980 \\ +29830 \\ \hline 92810 \end{array}$	$\begin{array}{r} 214 \\ 3.14 \\ \hline 62980 \\ +29830 \\ \hline 92810 \end{array}$	$\begin{array}{r} 214 \\ 3.14 \\ \hline 62980 \\ +29830 \\ \hline 92810 \end{array}$
$\begin{array}{r} 214 \\ 3.14 \\ \hline 62980 \\ +29830 \\ \hline 92810 \end{array}$	$\begin{array}{r} 214 \\ 3.14 \\ \hline 62980 \\ +29830 \\ \hline 92810 \end{array}$	$\begin{array}{r} 214 \\ 3.14 \\ \hline 62980 \\ +29830 \\ \hline 92810 \end{array}$	$\begin{array}{r} 214 \\ 3.14 \\ \hline 62980 \\ +29830 \\ \hline 92810 \end{array}$



$$d = \frac{12''}{2} = 6''$$

$$r = 6'' \times 18 = 108''$$

$$C = 2\pi r = 2 \times 3.14 \times 6'' = 37.68''$$

$$a = 113.04'' + 3140''$$

$$37.68$$

$$2$$

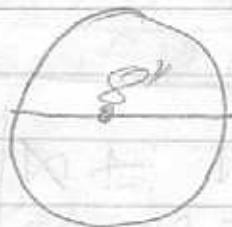
$$3.14$$

$$\times 18$$

$$1084$$

$$+ 9470$$

$$11304$$



$$d = \frac{8''}{2} = 4''$$

$$r = 4'' \times 18 = 72''$$

$$C = 2\pi r = 2 \times 3.14 \times 4'' = 25.12''$$

$$a = 50.24'' + 3140''$$

$$3.14$$

$$\times 18$$

$$1084$$

$$+ 3140$$

$$5024$$



$$\begin{array}{r}
 d = 24'' \\
 r = 12'' \\
 C = 75.36'' \\
 a = 452.16''
 \end{array}
 \begin{array}{r}
 3.14 \\
 \times 24 \\
 \hline
 1256 \\
 + 6280 \\
 \hline
 7536
 \end{array}$$

$$3.14$$

$$\times 12$$

$$1256$$

$$12560$$

$$+ 31400$$

$$\hline 45216$$

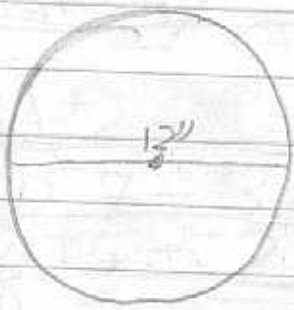


$$\begin{array}{r}
 d = 100' \\
 r = 50' \\
 C = 314.00' \\
 a =
 \end{array}
 \begin{array}{r}
 3.14 \\
 \times 100 \\
 \hline
 000 \\
 + 31400 \\
 \hline
 31400
 \end{array}$$

$$\begin{array}{r}
 50 \\
 \times 50 \\
 \hline
 00 \\
 - 2500 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 2500 \\
 \times 3.14 \\
 \hline
 10000 \\
 250000 \\
 500000 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 + 314 \\
 \hline
 314.00
 \end{array}$$



$$\begin{array}{r}
 d = 12'' \quad 3.14 \\
 r = 6'' \quad \times 18 \\
 \hline
 C = 37.68'' \quad 6.28 \\
 a = 113.04'' + 3.14 \\
 \hline
 37.68 \\
 2 \\
 \hline
 3.14 \\
 \times 138 \\
 \hline
 1884 \\
 + 9420 \\
 \hline
 11304
 \end{array}$$



$$\begin{array}{r}
 d = 8'' \quad 1.3 \\
 r = 4'' \quad 3.14 \\
 \hline
 C = 25.12'' \quad \times 8 \\
 a = 50.24'' \quad 25.12 \\
 \hline
 2 \\
 \hline
 3.14 \\
 \times 118 \\
 \hline
 1884 \\
 + 3140 \\
 \hline
 5024
 \end{array}$$





$$\begin{array}{r}
 d = 24'' \\
 r = 12'' \\
 c = 75.36'' \\
 a = 452.16''
 \end{array}
 \begin{array}{r}
 3.14 \\
 \times 24 \\
 \hline
 1256 \\
 + 6280 \\
 \hline
 7536
 \end{array}$$

$$3.14$$

$$\times 12$$

$$1256$$

$$12560$$

$$+ 31400$$

$$\hline 45216$$



$$\begin{array}{r}
 d = 100' \\
 r = 50' \\
 c = 314.00' \\
 a = \underline{\hspace{2cm}}
 \end{array}
 \begin{array}{r}
 3.14 \\
 \times 100 \\
 \hline
 000 \\
 + 31400 \\
 \hline
 31400
 \end{array}$$

$$\begin{array}{r}
 + 314 \\
 \hline
 31400
 \end{array}$$

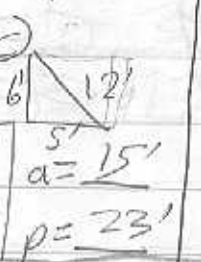
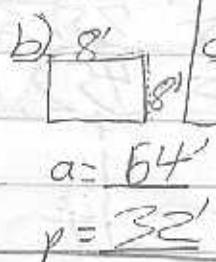
$$\begin{array}{r}
 50 \\
 \times 50 \\
 \hline
 00 \\
 - 2500
 \end{array}$$

$$\begin{array}{r}
 2 \\
 \times 2500 \\
 \hline
 10000 \\
 25000 \\
 50000
 \end{array}$$

# Warm-Up

4/18/05

1) Find area + perimeter



2)



Find:

- $C = 37.68''$
- $D = 12''$
- $R = 6''$
- $A = 113.04$

3.14  
 $\times 12$   
-----  
628  
3140  
-----  
3768  
1  
3.14  
 $\times 13$   
-----  
1884  
39420  
-----  
113.04

~~X~~ ~~2~~ ~~X~~ ~~4~~ ~~8~~ ~~X~~ ~~6~~ ~~X~~ ~~8~~ ~~X~~ ~~4~~ ~~X~~ ~~2~~

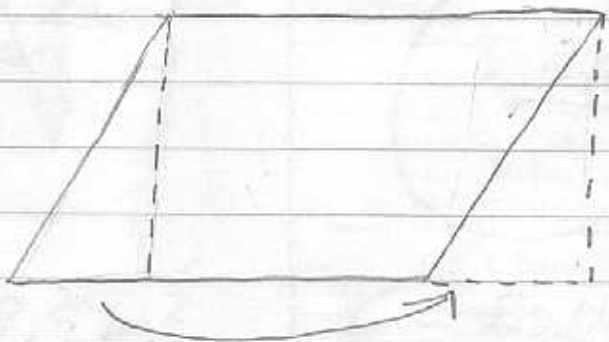
Tax Layer

Tax Collector

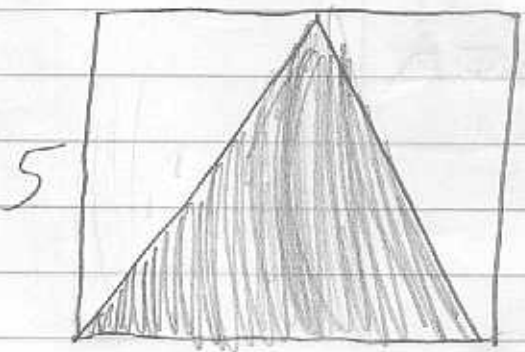
11  
 9  
 10  
 + 8  
 ---  
 38  
 + 12  
 ---  
 50

11  
 9  
 10  
 + 8  
 ---  
 38  
 + 17  
 ---  
 55

Parallelograms



$\frac{1}{2}bh$   
 $A = b \times h$



base = 6  
 height = 5  
 $\frac{1}{2}bh =$

6

# Warm-Up

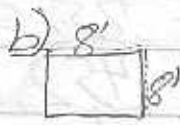
4/18/05

1) Find area + perimeter



$a = 24'$

$p = 20'$



$a = 64'$

$p = 32'$



$a = 15'$

$p = 23'$

2)



Find:

$C = 37.68''$

$D = 12''$

$R = 6''$

$A = 113.04''$

$$\begin{array}{r} 3.14 \\ \times 12 \\ \hline 628 \\ 3140 \\ \hline 37.68 \end{array}$$

$$\begin{array}{r} 3.14 \\ \times 136 \\ \hline 1884 \\ +9420 \\ \hline 113.04 \end{array}$$





# Math Quiz

4/2/05

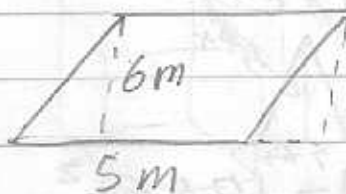
1)



$$A = \underline{40 \text{ ft}^2}$$

$$P = \underline{26 \text{ ft}}$$

2)



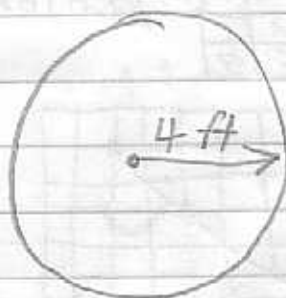
$$A = \underline{30 \text{ m}^2}$$

3)



$$A = \underline{17,5 \text{ in.}^2}$$

4)



$$C = 25,12 \text{ ft} \times 8$$

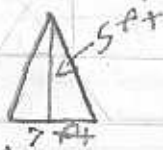
$$D = 8 \text{ ft} \quad 25,12$$

$$A = 50,24 \text{ ft}^2$$

$$\begin{array}{r} 13 \\ 3,14 \\ \times 16 \\ \hline 1884 \\ +3140 \\ \hline 5024 \end{array}$$

Warm-Up 4/25/05

1) Area



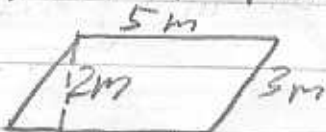
$$A = 17.5 \text{ ft}^2$$

2) Area + Perimeter



$$A = 25 \text{ in}^2 \quad P = 20 \text{ in.}$$

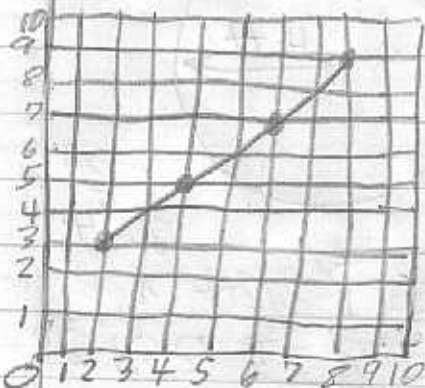
3) Area + Perimeter



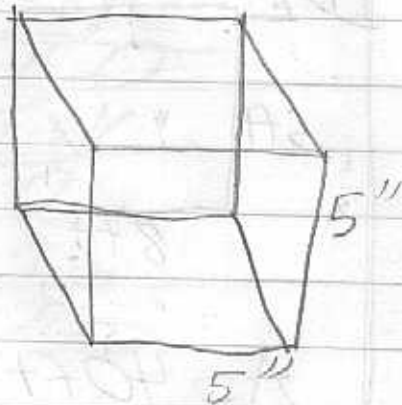
$$A = 10 \text{ m}^2 \quad P = 16 \text{ m}$$

4) Plot + equation

x	2	4	6	8
y	3	5	7	9

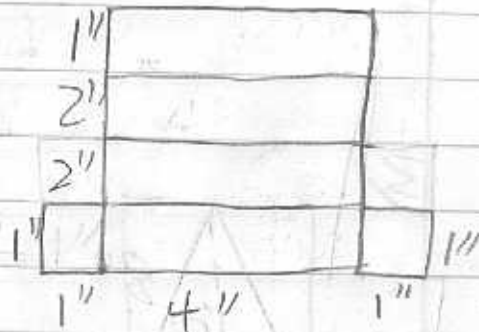


equation:  $y = x + 1$



$$25 \text{ in.}^2 = 1 \text{ face}$$

$$25 \times 6 = 150 \text{ in.}^2$$

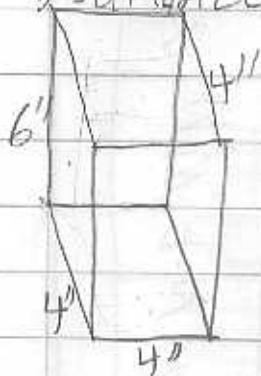


$$26 \text{ in.}^2$$



## Warm-Up 4/2/2025

1) Surface Area



$$\begin{array}{r}
 2 \\
 16 \\
 24 \\
 24 \\
 24 \\
 +24 \\
 \hline
 128 \text{ in}^2
 \end{array}$$

2) Area + Perimeter



$$\begin{array}{l}
 A = 15 \text{ in}^2 \\
 P = 20 \text{ in}
 \end{array}$$

3) Circumference and Diameter



$$\begin{array}{l}
 C = 62.80 \text{ in} \\
 d = 20 \text{ in}
 \end{array}$$

$$3.14$$

$$\times 20$$

$$000$$

$$+6280$$

$$\hline 6280 \text{ in}$$

4)  $\begin{array}{r} 12.035 \\ \times 15 \\ \hline 60035 \\ +120070 \\ \hline 180105 \end{array}$   $\begin{array}{r} 12.037 \\ \times 15 \\ \hline 60035 \\ +120070 \\ \hline 180105 \end{array}$

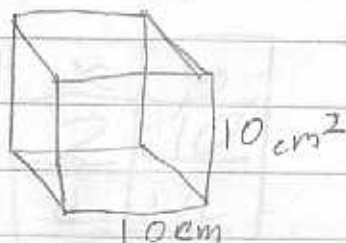
$$\times 15$$

$$60035$$

$$+120070$$

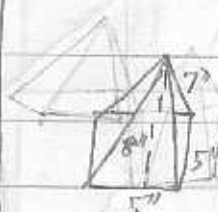
$$\hline 180105$$

1) Surface Area



$$\text{Surface area} = 600 \text{ cm}^2$$

2) Surface area



$$\text{Surface area} = 105 \text{ in}^2$$

Warm-Up 4/25/05

1) Area



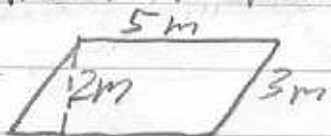
$$A = 17.5 \text{ ft}^2$$

2) Area + Perimeter



$$A = 25 \text{ in}^2 \quad P = 20 \text{ in.}$$

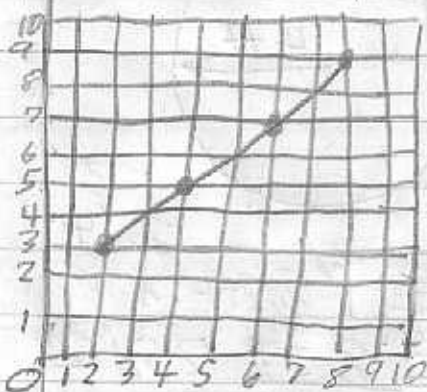
3) Area + Perimeter



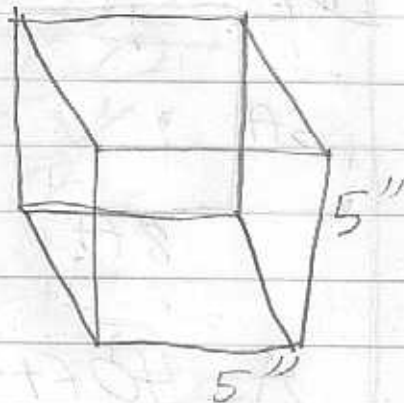
$$A = 10 \text{ m}^2 \quad P = 16 \text{ m}$$

4) Plot + equation

x	2	4	6	8
y	3	5	7	9

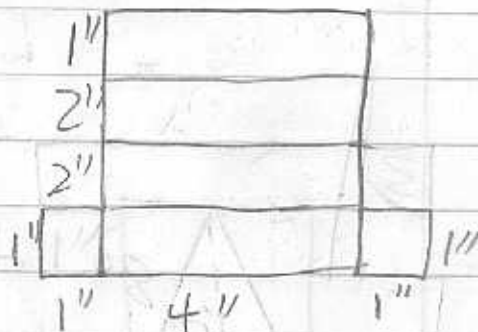


equation:  $y = x + 1$



$$25 \text{ in}^2 = 1 \text{ face}$$

$$25 \times 6 = 150 \text{ in}^2$$



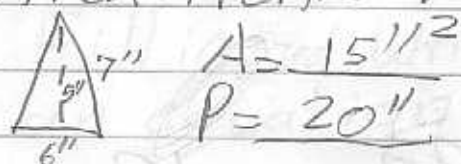
$$26 \text{ in}^2$$

## Warm-Up 4/27/05

1) Surface Area



2) Area + Perimeter



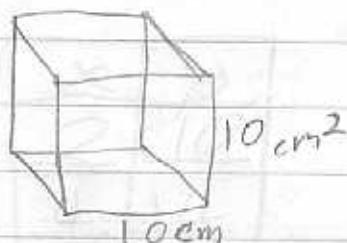
3) Circumference and Diameter



$$\begin{array}{r}
 3.14 \\
 \times 20 \\
 \hline
 000 \\
 +6280 \\
 \hline
 6280 \text{ in}
 \end{array}$$

$$\begin{array}{r}
 12.035 \\
 \times 15 \\
 \hline
 60035 \\
 +120070 \\
 \hline
 180105
 \end{array}
 \qquad
 \begin{array}{r}
 12.037 \\
 \times 15 \\
 \hline
 60035 \\
 +120070 \\
 \hline
 180105
 \end{array}$$

1) Surface Area



Surface area = 600 cm

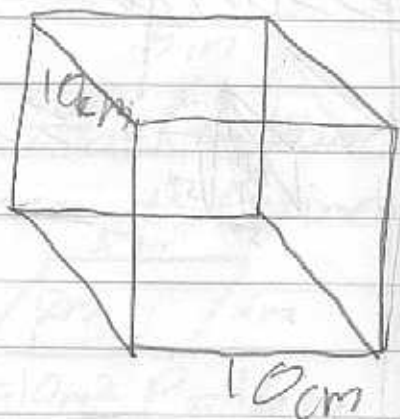
2) Surface area



Surface area = 105 in<sup>2</sup>

$$\text{Volume} = l \times w \times h$$

e i e  
n d i  
g + g  
+ h h  
h +



$$\begin{array}{r} 10 \\ \times 10 \\ \hline 100 \\ \times 10 \\ \hline \end{array}$$

$$1000 \text{ cm}^3$$



$$25 \times 10 \times 8$$

$$250 \times 8 = 2000 \text{ cm}^3$$

5/2/05

1)

x	y
2	13
3	19
4	25
5	—
6	—

Fill in and Write  
an equation

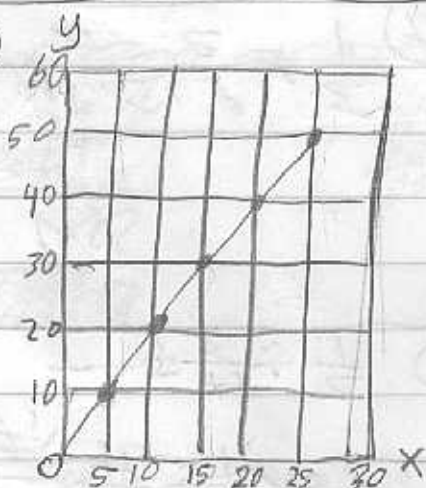
$$y = (x - 6) + 1$$

$$3) y = (x + 3) \cdot 2$$

x	y
2	10
4	14
6	18
8	22

fill in the table

3)



Write an  
equation

$$y = x \cdot 2$$

4)

$$\frac{1}{4} + \frac{3}{9} = \frac{21}{36}$$

$$\frac{1 \times 9}{4 \times 9} = \frac{9}{36}$$

$$\frac{3 \times 4}{9 \times 4} = \frac{12}{36}$$

$$\frac{9}{36} + \frac{12}{36} = \frac{21}{36}$$

$$1) \frac{1}{8} + \frac{5}{8} = \frac{6}{8}$$

$$2) \frac{3}{4} + \frac{1}{8} = \frac{7}{8}$$

$$\frac{3}{4} \times \frac{2}{2} = \frac{6}{8}$$

$$\frac{1}{8} \times \frac{1}{1} = \frac{1}{8}$$
$$\frac{7}{8}$$

$$3) \frac{8}{12} - \frac{1}{4} = \frac{11}{12}$$

$$4) \frac{1}{3} \times \frac{2}{6} = \frac{2}{18}$$

$$\frac{8}{12} \times \frac{1}{1} = \frac{8}{12}$$

$$\frac{1}{4} \times \frac{3}{3} = \frac{3}{12}$$

$$\frac{11}{12}$$

$$5) \frac{1}{2} \div \frac{3}{4} = \frac{2}{3}$$

$$\frac{1}{2} \times \frac{4}{3} = \frac{4}{6} = \frac{2}{3}$$

$$1) \frac{1}{2} - \frac{1}{3} = \frac{1}{6}$$

$$\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$$

$$\frac{1}{3} \times \frac{2}{2} = \frac{2}{6}$$

$$\frac{3}{6} - \frac{2}{6} = \frac{1}{6}$$

$$2) \frac{3}{16} + \frac{1}{4} = \frac{7}{16}$$

$$\frac{1}{4} \times \frac{4}{4} = \frac{4}{16}$$

$$\frac{3}{16} + \frac{4}{16} = \frac{7}{16}$$

$$3) \frac{1}{8} \times \frac{1}{4} = \frac{1}{32}$$

$$4) \frac{3}{4} \div \frac{1}{2} = 1\frac{1}{2}$$

$$\frac{3}{4} \times \frac{2}{1} = \frac{6}{4}$$

$$\begin{array}{r} 1.5 \\ 4 \overline{) 6.0} \\ \underline{4} \phantom{0} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

~~$$\begin{array}{r} .70 \\ \times .70 \\ \hline 210 \\ 490 \\ \hline 49.00 \end{array}$$~~

$$\begin{array}{r} .70 \\ \times .70 \\ \hline 210 \\ 490 \\ \hline 49.00 \end{array}$$

= 70%

$$\frac{70}{100}$$

$$\begin{array}{r} .64 \\ \times .64 \\ \hline 256 \\ 4096 \\ \hline 40.96 \end{array}$$

= 64%

$$\frac{64}{100}$$

$$\frac{.99}{11} = 99\%$$

$$\frac{99}{100}$$

$$62.71 = 71\%$$

$$\frac{71}{100}$$

$$\begin{array}{r} 62.71 \\ \times 1.21 \\ \hline 12542 \\ 79252 \\ \hline 762215 \end{array}$$

① 50 out of 200 kids finished the race. What % finished?

$$\frac{50}{200} = \frac{4}{200} \quad 50 = \frac{1}{4} \text{ of } 200$$
$$\frac{50}{200} = \frac{1}{4} = 25\%$$

②  $\frac{1}{4} - \frac{1}{12} = \frac{2}{12}$

$$\frac{1 \times 3}{12 \times 1} = \frac{3}{12}$$
$$\frac{1 \times 1}{4 \times 3} = \frac{1}{12}$$
$$\frac{3}{12} - \frac{1}{12} = \frac{2}{12}$$

③  $\frac{1}{16} + \frac{4}{16} = \frac{5}{16}$

④  $5^2 = 25$

⑤  $\frac{1}{16} \times \frac{1}{4} = \frac{1}{64}$

⑥  $\frac{4}{5} \times \frac{4}{5} = \frac{16}{25}$

⑦ 1 out of 5 kids loves homework.  
What percent loves homework?  
20%

⑧ Prime factors of 48.

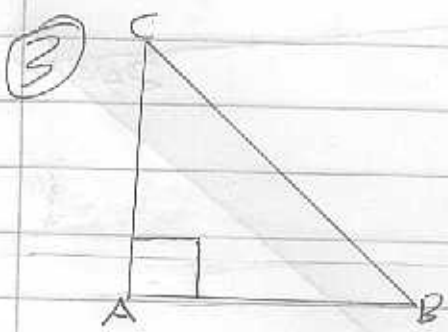
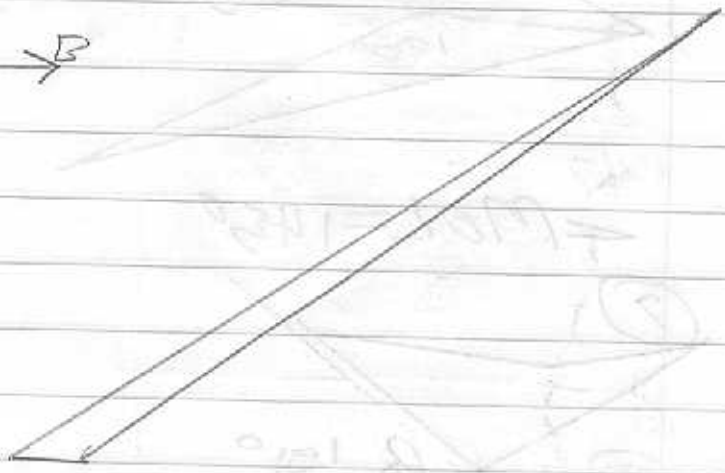
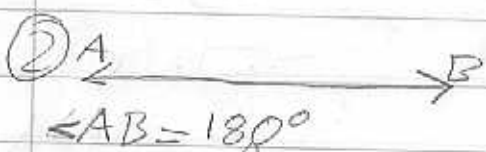
$$\begin{array}{r} 48 \\ \hline 48 \times 1 \\ \hline 8 \times 6 \\ \hline 4 \times 2 \\ \hline 2 \times 2 \end{array}$$



①

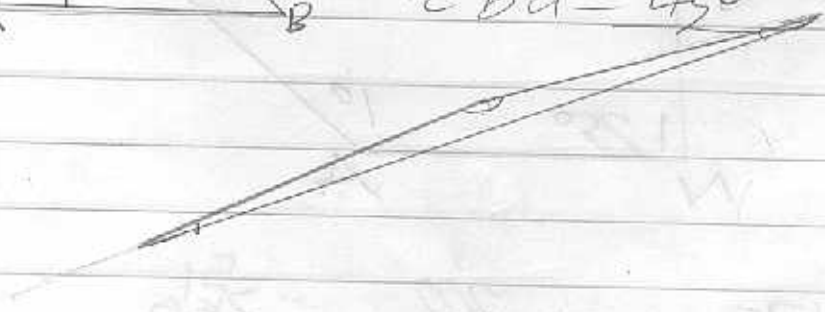
x	y
1	6
2	9
3	14
4	21
5	30

$x^2 + 5 = y$

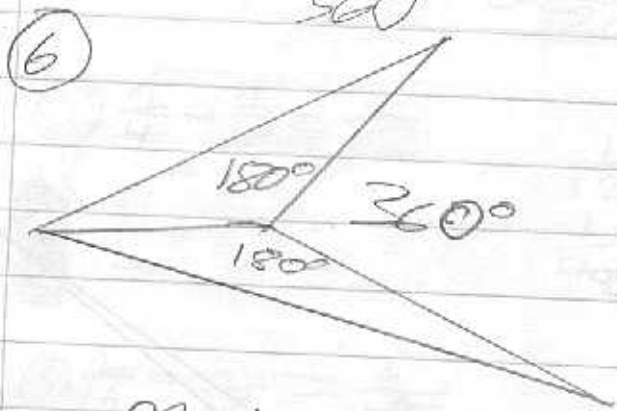
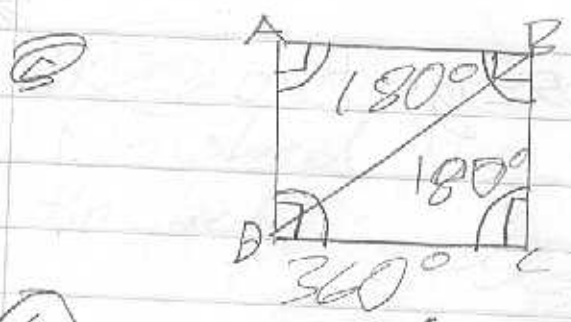


Triangle =  $180^\circ$   
 Right =  $90^\circ$   
 $\angle acb = 45^\circ$   
 $\angle cba = 45^\circ$

④

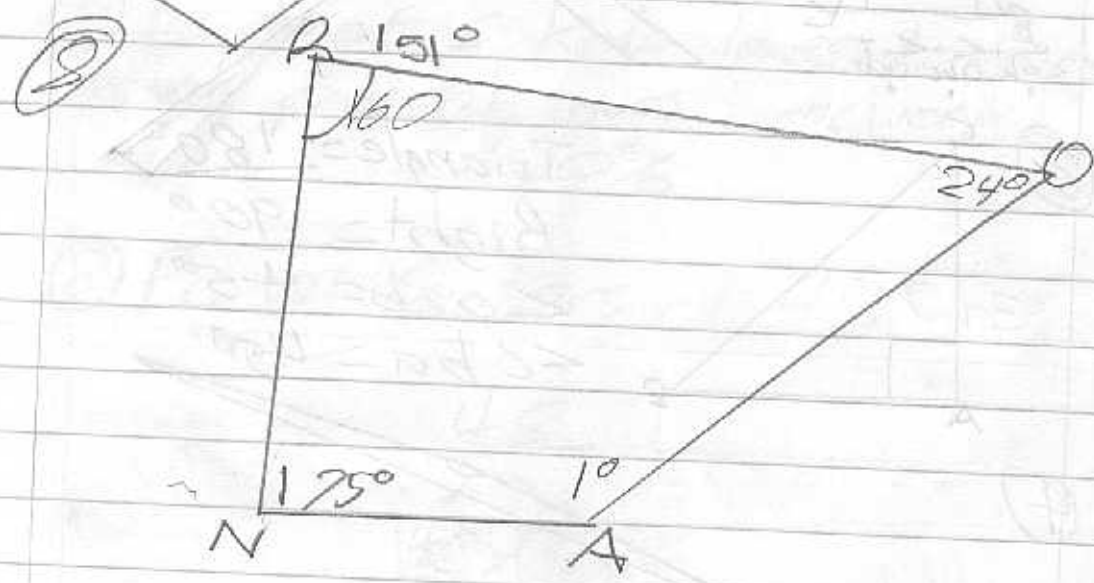
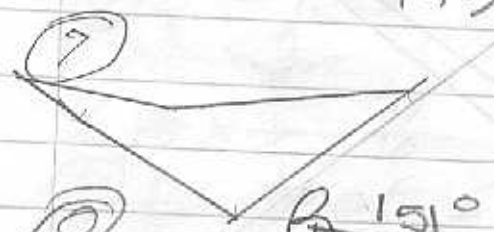


5/6/05



80	510
<del>+ 70</del>	<del>380</del>
150	215
<u>+ 65</u>	<u>145</u>
215	

∠MOL = 145°



175
<u>+ 11</u>
176
<u>+ 24</u>
200

360
<u>- 200</u>
160

51
<u>360</u>
209
<u>151</u>

# Probability

① This is a rectangular prism cake  
the

getting something like (if  
of something like

$$\frac{1}{2} = \frac{1}{4} + \frac{1}{4} \quad \text{②}$$

$$\frac{1}{3} = \frac{1}{6} + \frac{1}{6} \quad \text{③}$$

$$\frac{1}{5} = \frac{1}{10} + \frac{1}{10} \quad \text{④}$$

so far so good

$$\frac{1}{7} = \frac{1}{14} + \frac{1}{14} \quad \text{⑤}$$

$$\frac{1}{9} = \frac{1}{18} + \frac{1}{18} \quad \text{⑥}$$

$$\frac{1}{11} = \frac{1}{22} + \frac{1}{22} \quad \text{⑦}$$

$$\frac{1}{13} = \frac{1}{26} + \frac{1}{26} \quad \text{⑧}$$

1.

$$\frac{1}{15} = \frac{1}{30} + \frac{1}{30} \quad \text{⑨}$$

$$\frac{1}{17} = \frac{1}{34} + \frac{1}{34} \quad \text{⑩}$$

Warmup, 5/19/05

$$\textcircled{1} \frac{3}{4} + \frac{7}{8} = 1\frac{5}{8}$$

$$\frac{3 \times 2}{4 \times 2} = \frac{6}{8}$$

$$\frac{7 \times 1}{8 \times 1} = \frac{7}{8}$$

$$1\frac{5}{8}$$

$$\textcircled{2} 2\frac{1}{4} + 3\frac{5}{12} = 5\frac{8}{12}$$

$$\frac{3}{12}$$

$$\frac{1 \times 3}{4 \times 3} = \frac{3}{12}$$

$$\textcircled{3} \frac{5}{8} - \frac{1}{6} = \frac{11}{24}$$

$$\frac{5 \times 3}{8 \times 3} = \frac{15}{24}$$

$$\frac{1 \times 4}{6 \times 4} = \frac{4}{24}$$

$$\textcircled{4} \frac{3}{4} \text{ of } 24$$

$$24 \div 4 = 6 \quad 6 \text{ is } \frac{1}{4} \text{ of } 24$$

$$6 \times 3 = 18$$

So, 18 is  $\frac{3}{4}$  of 24.

$$\textcircled{5} \frac{3}{4} \text{ of } 12$$

$$12 \div 4 = 3 \quad 3 \text{ is } \frac{1}{4} \text{ of } 12$$

$$3 \times 3 = 9$$

So, 9 is  $\frac{3}{4}$  of 12

$$\frac{12}{1} \div \frac{3}{4} = \text{---}$$

$$\frac{12}{1} \times \frac{4}{3} = \frac{36}{3} = \frac{9}{1} = 9$$

# Probability

definition: the chance of getting something, the likelihood of something happening

Chocolate

$\frac{10}{15}$

$\frac{10}{15}$

$$15 \times 10 = 150 \times 2 = 300$$

$$15 \times 10 = 150 \times 2 = 300$$

$$15 \times 10 = 150 \times 2 = 300$$

Chocolate = 900g

Ice Cream

$$1 = 1000 \quad 15 \quad 150$$

$$1 = 1000 \quad 15 \quad 150$$

$$1 = 1000 \quad 15 \quad 150$$

Ice Cream = 900g

$$180^\circ$$

$$360^\circ$$

# Probability

2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12

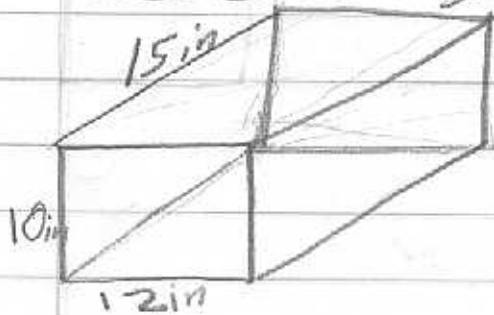
I  
win!

I  
win!

|||||

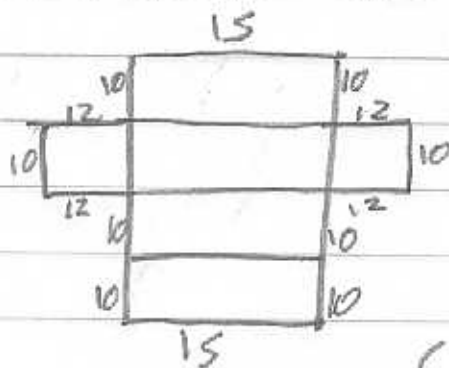
|||||

### Ice Cream Bar



Chocolate = Surface Area  
Ice Cream = Volume

### Chocolate:



$$\begin{array}{r}
 15 \times 10 = 150 \times 2 = 300 \\
 10 \times 12 = 120 \times 2 = 240 \\
 12 \times 15 = 180 \times 2 = 360 \\
 \hline
 900
 \end{array}$$

Chocolate =  $900 \text{ in}^2$

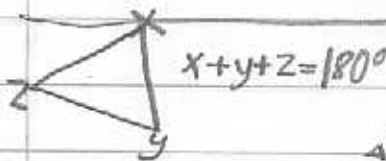
### Ice Cream:

$l \times w \times h$

$$\begin{array}{l}
 l = 15 \text{ in} \\
 w = 12 \text{ in} \\
 h = 10 \text{ in}
 \end{array}$$

$$\begin{array}{r}
 15 \quad 180 \\
 \times 12 \quad \times 10 \\
 \hline
 30 \quad 1800 \\
 + 150 \\
 \hline
 190
 \end{array}$$

Ice Cream =  $1800 \text{ in}^3$



$x + y + z = 180^\circ$



$A + B + C = 180^\circ$



$H + I + J + K = 360^\circ$

$\triangle = 180^\circ$

$\square = 360^\circ$

Konah



Beware the



Tricks of Magic



Et tuu Brutus

