Algebra and Geometry I

Pre-Requisite Review #2

Name: _____

Date: _____ Hr: _____

Show ALL WORK!

Convert the following:

1. 325cm = _____ mm
2. 0.005 km = _____ m
3. 1000dm = _____ cm
4. 42 mL= _____ L
5. .003 kg = _____ dg
6. 18, 765 mg = _____ hg

Simplify the following:

7. -3 + 5 =
8. -2 – 6 =
9. -3 + -5 =
10. -2 - -6 =
11. 2 x 3 =
12. -4 x 3 =
13. -2 x -5
14. 3 x 0 =
15. -2 + (1 – 3) =
16. $3 + 6 \cdot 3 =$
17. $12 \div 6 \cdot 1 - 2$
18. $2\,(1 + 5) \div 4$
19. $2 + 1 \cdot 4$
20. $10 + 3^2$
21. $15 - (12 - 2) \div 5$
22. $23 - 8 \cdot 2 + 6 \div 3$
23. $\frac{88 - 22}{22 - 11}$
24. $\frac{36}{9} + 2$

Substitute and evaluate: *x = 6, y = 4, m = 1, p = 1/3 , n = ½*

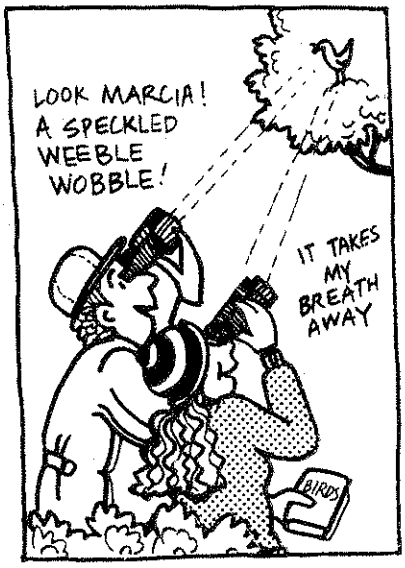
25. $4x - 2m$
26. $5y + 8p$
27. $nxy \div m$
28. $2(3x + 6) \div (10m)$
29. $2ny + x$
30. $(x + y) \div p$

BIRDS THAT COUNT

Marcia and Bradley helped with the Audubon Society's bird-counting project. They volunteered to be on a team that made the semiannual count of birds at the Municipal Park. After returning to the park shelter a tabulation was made of all the birds that were sighted and the following statistics were compiled.

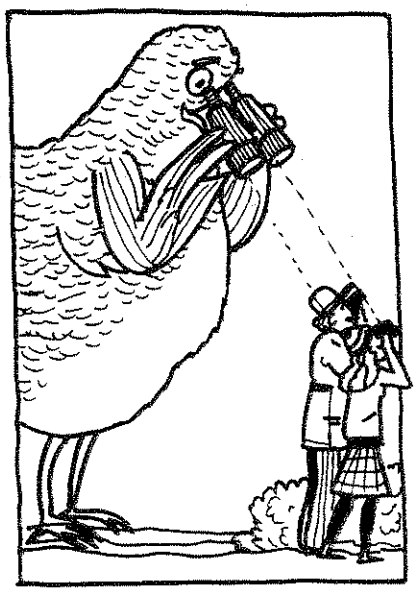
Example: Of the 1240 total birds sighted, 36 were cardinals. $^{36}/_{1240} = .029 = 2.9\%$

1. The decimal values in the chart below were found by dividing the count by 1240 which represents the total birds sighted this year. Find the equivalent percent of each.



Name of bird	*Count*	*Decimal Value*	*Percent*
a. Starling	556	0.448	_____
b. Grackle	97	0.078	_____
c. Cardinal	36	0.029	2.9%
d. Bluebird	11	0.009	_____
e. Wren	74	0.060	_____
f. Chickadee	68	0.055	_____
g. Sparrow	53	0.043	_____
h. Finch	81	0.065	_____
i. Woodpecker	51	0.041	_____
j. Catbird	20	0.016	_____
k. Mockingbird	35	0.028	_____
l. Other birds	158	0.128	_____

2. The chart below shows the counts from this year and last year, and the percent change that occurred for each category. Use the percent change to find an equivalent decimal value.



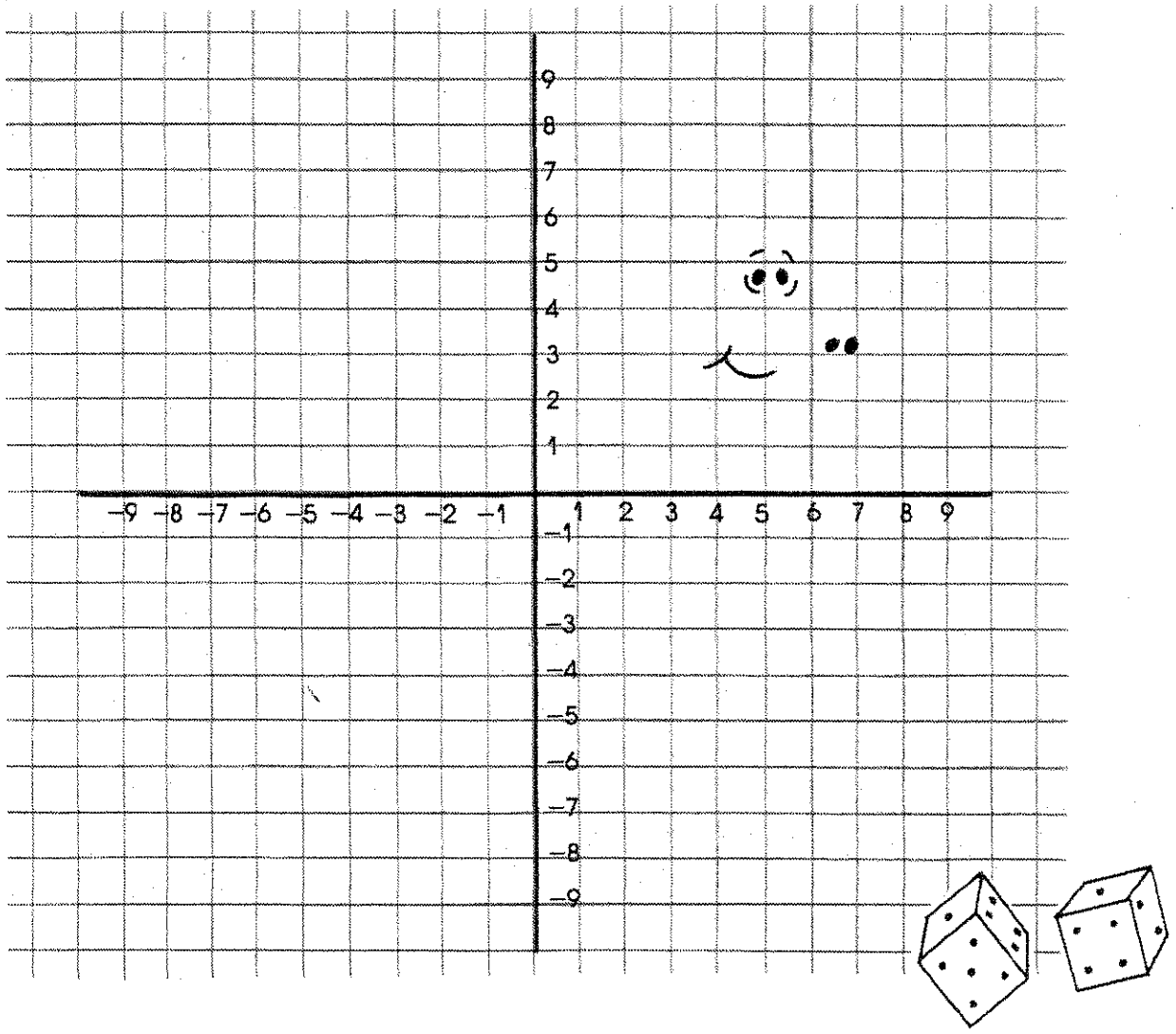
Name of bird	*Count this year*	*Count last year*	*Percent change*	*Decimal value*
a. Starling	556	524	6.1%	0.061
b. Grackle	97	84	15.5%	_____
c. Cardinal	36	42	14.3%	_____
d. Bluebird	11	50	78.0%	_____
e. Wren	74	82	9.8%	_____
f. Chickadee	68	75	9.3%	_____
g. Sparrow	53	66	19.7%	_____
h. Finch	81	78	3.8%	_____
i. Woodpecker	51	71	28.2%	_____
j. Catbird	20	39	48.7%	_____
k. Mockingbird	35	47	25.5%	_____
l. Other birds	158	103	53.4%	_____

Name _____

Plotting Points

Graph the following ordered pairs and connect the points in order until you reach the word *Lift*. What you get is a probability dice game, described below.

Start
(9, 6)
(6, 7)
(3, 8)
(0, 7)
(−7, 4)
(−9, −3)
(1, −8)
(1, −7)
(2, −7)
(−1, −4)
(0, −1)
(−2, 1)
Lift
(6, 7)
(7, 5)
(9, 6)
Lift
(7, 5)
(7, 4)
(8, 4)
(8, 3)
(6, 2)
(5, 3)
(6, 4)
(7, 4)
Lift
(4, 5)
(3, 8)
(1, 6)
(4, 5)
Lift
(1, 3)
(2, 1)
(4, 1)
Lift
(6, 2)
(10, −3)
(9, −3)
(9, −4)
(5, −1)
(5, −4)
(8, −7)
(7, −7)
(8, −8)
(2, −5)
(−.5, −7.5)
Lift
(7, −6)
(6, −7)
Lift
(9, −2)
(8, −3)
Lift



To play this game, called Pig, you need two dice and a friend. You roll the dice as long as you want. Add each count to the previous total. You may give up your turn when you choose. You lose your turn but keep your total if one of the dice comes up 1. If both dice come up 1, you lose your turn and your count and start over at 0. The winner is the first person to reach 100. (Tip: It helps to know the probability of rolling 1.)

Name: _____

Fractions Worksheet

Complete the following problems. Show all of your work.

1. $\frac{10}{36} - \frac{9}{20} =$
2. $\frac{6}{34} - \frac{12}{23} =$
3. $\frac{1}{14} - \frac{3}{18} =$
4. $\frac{5}{17} - \frac{12}{40} =$
5. $\frac{15}{28} \times \frac{2}{18} =$
6. $\frac{5}{32} + \frac{2}{30} =$
7. $\frac{15}{35} + \frac{8}{26} =$
8. $\frac{17}{39} \div \frac{16}{13} =$
9. $\frac{14}{24} \times \frac{6}{39} =$
10. $\frac{12}{31} + \frac{12}{29} =$
11. $\frac{18}{26} \div \frac{16}{29} =$
12. $\frac{3}{34} - \frac{19}{39} =$
13. $\frac{18}{21} \div \frac{3}{15} =$
14. $\frac{12}{24} + \frac{20}{28} =$
15. $\frac{14}{15} + \frac{15}{30} =$
16. $\frac{18}{13} \times \frac{3}{25} =$
17. $\frac{13}{18} - \frac{5}{28} =$
18. $\frac{18}{37} \div \frac{2}{11} =$
19. $\frac{5}{28} \div \frac{13}{22} =$
20. $\frac{8}{37} - \frac{13}{18} =$
21. $\frac{15}{34} + \frac{11}{40} =$
22. $\frac{1}{24} \times \frac{4}{27} =$
23. $\frac{10}{25} - \frac{2}{22} =$
24. $\frac{12}{20} + \frac{7}{15} =$