Name:_____Period:_____ SCORE:_____

Intermediate 1 - END OF YEAR Review #2

1. Which number is greatest?

   $\dfrac{2}{7}, 0.279, \dfrac{3}{11}, 0.3$

2. Austin ran $\dfrac{5}{6}$ of a mile, Alfonso ran 0.89 miles, Cayden ran $\dfrac{7}{8}$ of a mile and Tyler ran 0.86 miles. List the runners in order of the longest distance run to the shortest.

Compare the following using <, > or =:

3. $\dfrac{2}{7}$ _____ $\dfrac{3}{8}$

4. $-\dfrac{3}{4}$ _____ $-\dfrac{5}{12}$

Convert the following to mixed numbers:

5. $\dfrac{40}{5}$

6) $-\dfrac{7}{2}$

Convert the following to improper fractions:

7) $-2\dfrac{2}{9}$

8) -24

9) $7\dfrac{4}{9}$

Of the 20 problems assigned for homework, Andrew completed 12 of them.

10) What fraction of the homework is finished?

11) What fraction of the homework is left to finish?

Evaluate.

12. $x + |5 - x|$ when x=11

13. $27 - x \div 2 \cdot y$ when x=10 and y=6

14. $4ac + 10$ when a=3 and c=-5

15. $\dfrac{xy}{2}$ when x=4 and y=5

Complete the table.

	Fraction	Decimal	Percent
16.		0.25	
17.	$\dfrac{1}{8}$		
18.			0.02%
19.		0.521	
20.	$3\dfrac{2}{5}$		
21.			265%

22. Find the average rate of change (use units!) for the money you earn mowing lawns.

Hours	2	4	6	8
Dollars	14	26	38	50

Calculate sales tax and total bill for the following shopping bill if sales tax is 8%.

$11.00 $10.50 $8.75

23. Tax: **25. Tax:**   **27. Tax:**

24. Total bill: **26. Total bill:**   **28. Total bill:**

Calculate the amount saved and the sale price for the following original prices with discounts.

$8.50 $10.75 $3.00
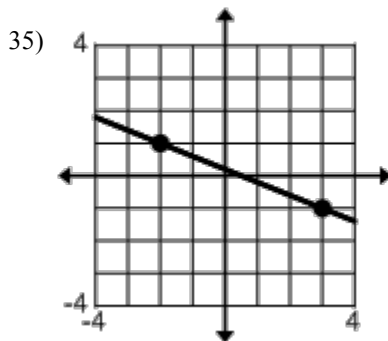10% off   15% off   20% off
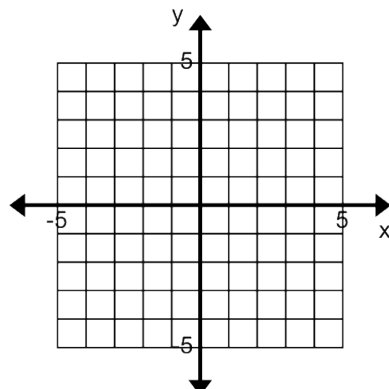
29. Amount saved: **31. Amount saved:**   **33. Amount saved:**

30. Sale price: **32. Sale price:**   **34. Sale price:**

Find the constant rate of change. (don't worry about the labels).

35)

36)
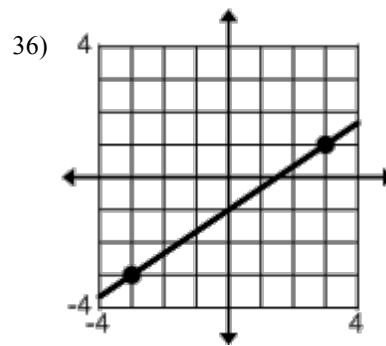
Use the graph to the right.

37) Graph $(2, -1)$

38) Graph $(-4, -2)$

For the following problems, find each unit rate. Round to the nearest hundredth if necessary.

39. $5.85 for 39 lollipops

40. 236 gallons for 4 minutes

41. $9.25 for 18 pounds

42. A grocery store sells 6 bottles of water for $4 and 18 bottles of water for $10. Is the cost of the water proportional to the number sold? Explain.

43. Bree can read 22 pages in 30 minutes. It takes Billy 42 minutes to read 28 pages. Who can read faster? WHY?

44. The table shows the cost for ordering a certain number of glasses of juice. What is the value of x if the cost is proportional to the number of glasses of juice ordered?

Glasses of Juice Ordered	2	4	5	7
Cost	$2.58	$5.16	$6.45	x

45. Hannah can travel 165 miles in 3 hours. At this rate, how far can she travel in 7 hours?

46. Hanna can read 30 pages in 15 minutes. At this rate, how many pages can she read in 24 minutes?

47. Thurman can run 4 miles in 28 minutes. At this rate, how long will it take her to run 6 miles?

48. The cost for 15 bags of candy is $60. How much will one bag of candy cost?

49. There are twelve pens in each package. How many are there in four packages?

50. You are making cookies that call for $\frac{1}{4}$ cup of brown sugar. You want to double the batch of cookies. How much brown sugar will you need to make the two batches of cookies?

51. Tom was assigned to read $\frac{1}{3}$ of a book in English class. He read $\frac{1}{4}$ of the book before dinner. How much does he need to read after dinner?

52. In a classroom of 7th graders, the ratio of blue eyes to brown eyes is 3:5. If there are 15 blue eyed students, how many brown eyed students are there?

53. Reese can get a 24-pack of bottled water for $6.80. How much would Myshayla have to pay for a 12-pack of bottled water if the ratios are proportional?

Number of notebooks	1	5	10	15
Cost ($)	4	12	22	32

54. Brinley paid four dollars for her first notebook and two dollars for each notebook after that. Is the cost proportional? Explain.

Determine if the following graphs or tables are proportional. **If they are, then state the constant rate of change. If they are not proportional, then explain why.**

55)

56)

57)

58)

59)

60)

61)

62)

63)
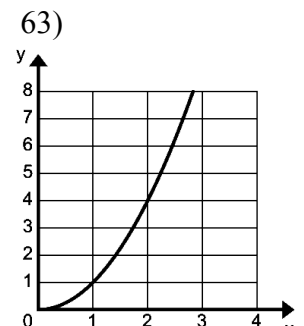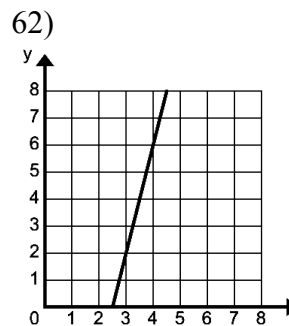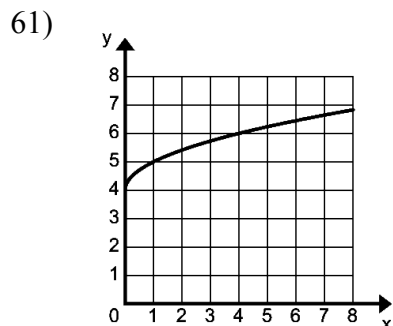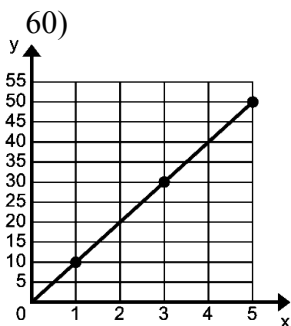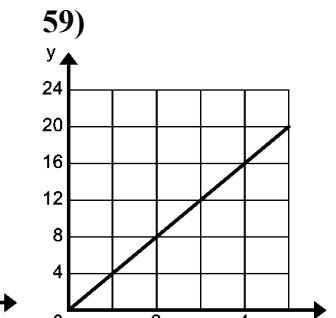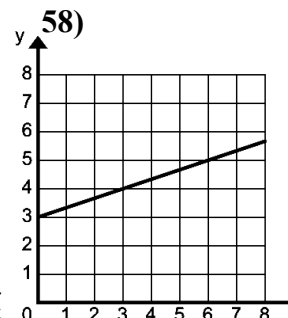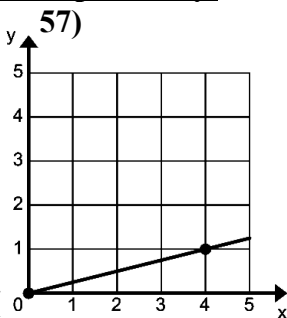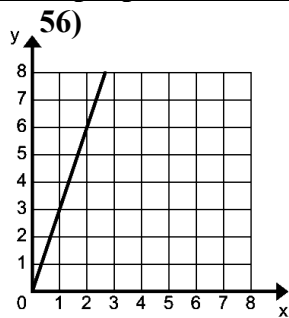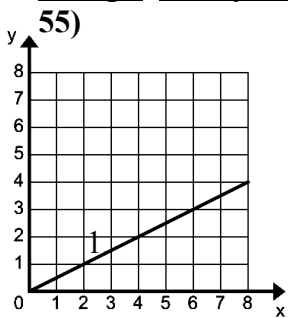
64)

Hours	1	2	3	4
Dollars	3	6	9	12

65)

Minutes	0	5	10	15
Feet	0	30	70	90

66)

Year	2	4	6	8
Height	13	26	39	52

67)

Seconds	1	2	3	4
Cost	7	14	28	56

Which arithmetic property is shown? (Commutative, Associative, Identity, Multiplicative Property of Zero)

68) $1\cdot(5\cdot9)=(1\cdot5)\cdot9$

69) $4+b=b+4$

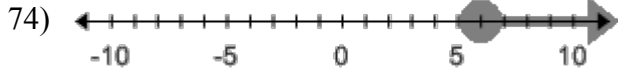70) $m\cdot n=n\cdot m$

71) $8+0=8$

72) $7\cdot1=7$

73) $(1+r)+s=1+(r+s)$

Write an inequality for each graph.

74)

75)

Solve. Show work.

76) $\dfrac{2}{3}+\dfrac{3}{4}$

77) $\dfrac{2}{5}\cdot\dfrac{1}{4}$

78) $4\div\dfrac{3}{4}$

79) $2\dfrac{3}{5}-\dfrac{4}{5}$

Find the greatest common factor of each pair of monomials.

80. $3x,\ 6$

81. $12w,\ 18wx$

82. $16xy,\ 32xy$

83. $25x,\ 15xy$

84. $42mn,\ 14mn$
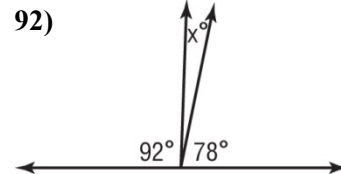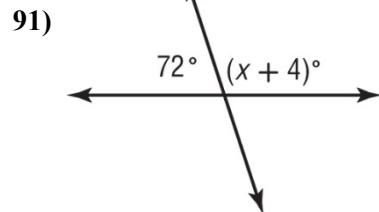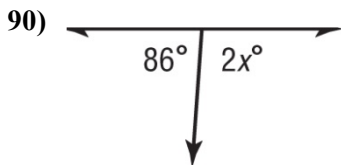
85. $12,\ 28c$

Factor the expressions.

86. $18x+14$

87. $5y-15$

88. $32w+8$

89. $6x+9$

Solve for x.
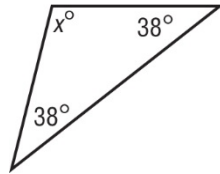
90)

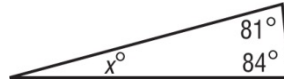91)
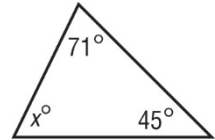
92)

93)
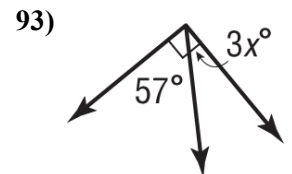
Solve for x.

94)
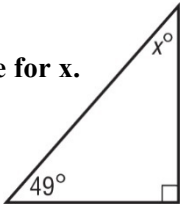
95)

96)

97)

98. Last year the backgammon club had 30 members. This year the club has 24 members. Find the percent of decrease in the number of members.

99. In the seventh grade, Nicole read 15 books. In the eighth grade she read 18 books. Find the percent of increase in the number of books Rachel read.

Convert measurements:

100. 15 lbs = _____ oz

101. 7.3 c = _____ fl oz

102. 22 qt = _____ gal

103. 23 ft = _____ yds

104. 2 mi = _____ ft

Customary Conversions

8 fluid ounces = 1 cup
2 cups = 1 pint
2 pints = 1 quart
4 quarts = 1 gallon
8 pints = 1 gallon
3 teaspoons = 1 tablespoon
16 tablespoons = 1 cup
16 fluid ounces = 1 pint
16 ounces = 1 pound
5,280 feet = 1 mile
12 inches = 1 foot
3 feet = 1 yard