Entering 8th Grade

Name: _____

Write all answers on the lines provided.

There are 10 roses and 14 sunflowers in a garden. Write a ratio for the statements below.
Remember to simplify.

1. Roses to sunflowers _____   2. Sunflowers to total flowers _____

3. Roses to total flowers _____

Find the unknown value in the proportion. *(Hint: Cross products)*

4. $\dfrac{n}{6} = \dfrac{51}{102}$ _____

5. $\dfrac{2}{4} = \dfrac{8}{c}$ _____

6. $\dfrac{7}{5} = \dfrac{q}{3}$ _____

7. $\dfrac{10}{8} = \dfrac{x}{10}$ _____

8. The Crayola Crayon Company can make 2400 crayons in 4 minutes. How many crayons can they make in 15 minutes?

_____

9.   The Bigtown football team outscored its opponents 5:2 last season. If their opponents scored 38 points, how many points did Bigtown score?

_____

10. Determine if the following ratios form a proportion. Write yes or no on the line next to each ratio.

a. $\dfrac{10}{35} = \dfrac{8}{28}$ _____

b. $\dfrac{2}{5} = \dfrac{8}{20}$ _____

c. $\dfrac{4}{7} = \dfrac{12}{21}$ _____

Order of Operations

Simplify

11). $(6 - 3 + 1 + 2) \div (5 - 3 + 1) =$ _____ 12.) $(5 \times 1) + 3^2 - 2$ _____

13.) $8 \times (8 - 8) \div 8$ _____ 14.) $2 \div 1 + 2 + 9 \div 9 =$ _____

SHOW YOUR WORK

15.) You can buy 3 apples at the Quick Market for $1.26 or you can buy 5 of the same apples at Stop and Save for $1.20. Which place is the better buy? _____

16.) The bakers at Healthy Bakery can make 270 bagels in 2 hours. How many bagels can they bake in 20 hours? _____

17.) A Ferris wheel can accommodate 65 people in 20 minutes. What is the rate per hour? How many people can ride the Ferris wheel in 4 hours?

   Rate per hour _____   People in 4 hours   _____

18.) Write the unite rate: $4.50 for 10 muffins   _____

19.) Write the unit rate: $12.35 for 13 cans   _____

One & Two Step Equations

Solve and show your work!

20.) $\frac{4}{9}y - 2 = 6$ _____

21.) $x - 4 = 8$ _____

22.) $\frac{c}{5} = 10$ _____

23.) $m + 2 = 11$ _____

24.) $2q + 8 = 12$ _____

25.) $1.5k + 10 = 32.5$ _____

Write the following as a decimal.

26.) 0.342% _____

27.) 1.34% _____

28.) 13%_____

Write the following as a percent.

29.) $\frac{9}{20}$ _____

30.) 28 _____

31.) .18 _____

Write the following as a fraction.

32.) 80% _____

33.) 25% _____

34.) $\frac{3}{5}$ _____

Evaluate

35.) 18 is 30% of what number?   _____

36.) 63 is 21% of what number?   _____
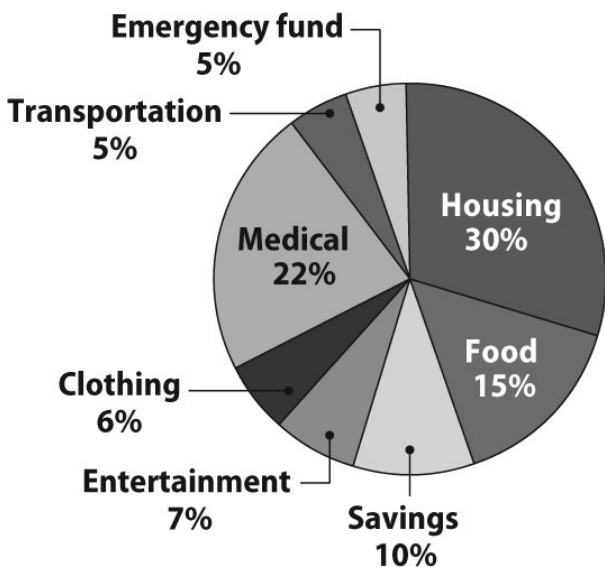
37.) What percent of 80 is 20?   _____

38.) What number is 20% of 75?   _____

39). Mary took 20 shots at her basketball game and made 15. What percent did she miss?

                                                    _____

Simplify each expression

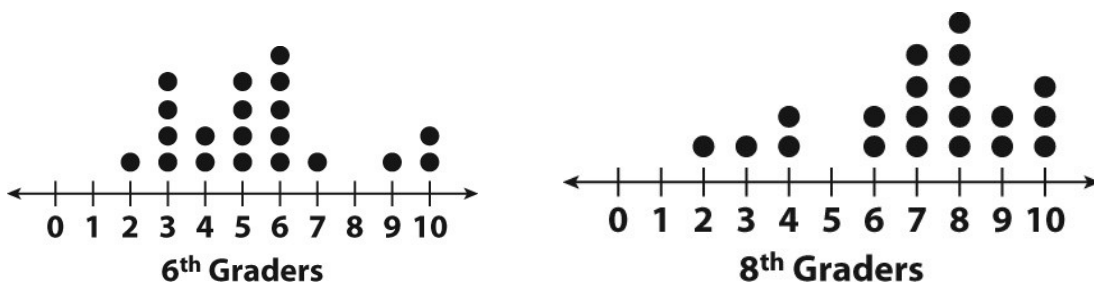| 40.) - 34 + -28	41.) - 95 + 47	42.) - 8 + 8
43.) 12 – 13	44). -1 – (-11)	45). - 55 – (- 55)
46.) -7 x (-8)	47.) 12 x 12	48.) 9 x (-5)
49.) 81 ÷ (-9)	50.) -12 ÷ (-4)	51.) -18 ÷ 3

52). The McDonald family's monthly budget is shown in the circle graph. The family has a monthly income of $4800.

a.) How much money do they spend on transportation each month? _____

b.) How much money do they spend on food each month? _____

53). Tim took a random survey of 20 sixth graders and 20 eighth graders. He asked how many hours a week each played sports. His data is shown in the two dot plots below.

6th Graders

8th Graders

a.) What is the range of 6th graders who play sports? _____

b.) What is the range of 8th graders who play sports? _____

c.) How many 6th graders play more than 6 hours of sports each week? _____