

Name \_\_\_\_\_

This is the summer math review for rising 8th graders. Do as much as you can without a calculator. This packet is due on August 10, 2016. You will be quizzed over the material in this packet on August 19th, 2016. You will not be allowed to use a calculator on the quiz.

## 8th Grade Summer

**Evaluate each expression.**

1)  $\frac{5}{4} + 1\frac{1}{6}$

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

3)  $\frac{4}{5} + 1\frac{1}{2}$

4)  $(-7) - 7$

5)  $(-7) - (-5)$

6)  $7 + (-6)$

7)  $4 - (-8)$

8)  $(-5) - (-2)$

9)  $2 + (-6)$

10)  $(-4) - (-2)$

11)  $8 - 7$

12)  $(-6) - 2$

13)  $4 - (-3)$

**Simplify each expression.**

14)  $7v^2 + 7v - 3v + 4v^2$

15)  $x^3 + 7 + 8x^3 - 5$

16)  $5r^3 + r - 4r + 4r^3$

17)  $2 + 8a - a - 1$

18)  $2x^2 + 1 - 4x^2 + 3$

**Evaluate each expression.**

19)  $5 - 7$

20)  $(-5) + (-5)$

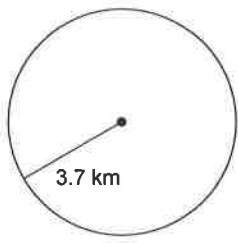
21)  $6 + (-2)$

22)  $1 + (-4)$

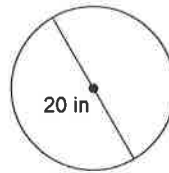
23)  $(-1) + 1$

Find the area of each. Round to the nearest tenth.

24)

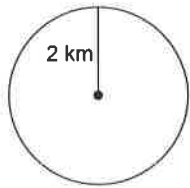


25)

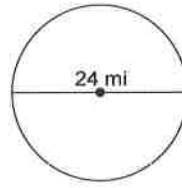


Find the circumference of each circle. Round to the nearest tenth.

26)



27)



Simplify each expression.

28)  $10(x + 9) + 2$

29)  $3(1 + 5b) + 9b$

Solve each equation. Show all the steps.

30)  $6 = x + 17$

31)  $-16n = -192$

32)  $5m = 35$

33)  $-4 = -16 - b$

34)  $\frac{n}{19} = -4$

35)  $5 + a = -4$

Solve each proportion.

36)  $\frac{x}{2} = \frac{5}{7}$

37)  $\frac{n}{9} = \frac{8}{5}$

**Evaluate each using the values given.**

38)  $x + x + y - y$ ; use  $x = 5$ , and  $y = 5$

39)  $p - m(p - p)$ ; use  $m = 5$ , and  $p = 6$

40)  $x(y + x) - x$ ; use  $x = 2$ , and  $y = 1$

41)  $5yx \div 4$ ; use  $x = 5$ , and  $y = 4$

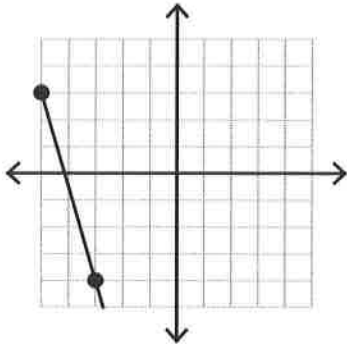
**Use simple interest to find the ending balance.  $I=PRT$**

42) \$38,600 at 9% for 3 years

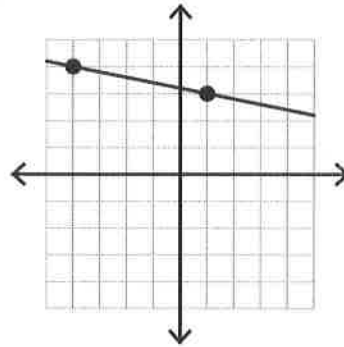
43) \$7,000 at 8.25% for 2 years

**Find the slope of each line.**

44)



45)



**Find the selling price of each item.**

46) Original price of an oil change: \$40.00  
Discount: 30%

47) Original price of a microscope: \$139.50  
Discount: 54%

**Answer each question by drawing a picture. Round each answer to the nearest whole number.**

48) A 10 ft tall adult elephant standing next to a car casts a 20 ft shadow. If the car casts a shadow that is 12 ft long then how tall is it?

**Answer each question and round your answer to the nearest whole number.**

49) Darryl bought 21 bunches of fennel for \$48. How many bunches can Emily buy if she has \$16?

50) Three packages of blueberries cost \$9. How many packages of blueberries can you buy for \$27?

**Answer each question. Show your work.**

51) Emily will be 32 years old in seventeen years. How old is she now?

52) Stefan wants to buy a puppy for \$134. He gives the cashier \$150. How much change does he receive?

53) If the weight of a package is multiplied by  $\frac{2}{3}$  the result is 48.8 pounds. Find the weight of the package.

54) A mean ogre stole 20 of your muffins. That was  $\frac{4}{9}$  of all of them! With how many did you start?