



7A Summer Packet

For students entering 8th grade Pre-Algebra in the fall

The summer math packet is comprised of important topics that you have studied this year, and will need to recall and use in the fall. Use your notes from the year, and any online reference as needed to refresh your memory. If you run into a question or two on a topic that we did not study in particular, use what you do know to try to work through it to the best of your ability.

Please work on the packet in small chunks throughout the summer, NOT IN ONE SITTING. Working in this way will best help you reinforce and retain the information that you learned this year.

After an in-class review of the packet questions, there will be a quiz on these topics during the first week of school in the fall. Working on this packet seriously will ensure retention of the topics learned, and a good start to the next school year.

***** PLEASE WORK ON YOUR MULTIPLICATION FACTS UP TO 13 X 13 EACH DAY *****

Have a safe and wonderful summer!



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1.) Complete the statement: $175 \text{ g} = \underline{\quad} \text{ kg}$.

2.) A model boat is 6 inches long. If the scale is 2 in. : 5 ft, how long is the actual boat?

Find the sum.

3.) $-21 + 17$

4.) $19 + (-31)$

5.) $-17 + (-23)$

Find the quotient. Simplify fraction answers.

6.) $416 \div 13$

7.) $\frac{2}{3} \div \frac{8}{9}$

8.) $1\frac{4}{5} \div 12$

9.) $2\frac{1}{3} \div 1\frac{1}{7}$

10.) $-32 \div (-4)$

11.) $64 \div (-8)$

Find the product. Simplify fraction answers.

12.) 27×136

13.) 7×1.45

14.) 0.35×0.71

15.) $\frac{2}{3} \times \frac{7}{9}$

16.) $\frac{3}{4} \times \frac{8}{15}$

17.) $7 \times \frac{2}{5}$

18.) $3\frac{1}{3} \times 2\frac{2}{5}$

19.) $11(-8)$

20.) $-11(0)$

21.) $-6(-12)$

Evaluate the expression. Remember to use the correct order of operations.

22.) $12 + 6 \times 3 - 14 \div 7$

23.) $5^2 + 3 \times 8$

Evaluate the expression when $x = 8$.

24.) $12x + 7$

25.) $36 \div (x + 4)$

26.) Find the perimeter and area of a rectangle with a length of 12 inches and a width of 18 inches.

27.) Find the mean, median, mode(s) and range of the data: 22, 26, 24, 22, 16, 12, 18, 22, 18, 20

Mean _____

Median _____

Mode _____

Range _____

28.) Write 31.0152 in words.

29.) Order the numbers from least to greatest:

5.09, 5.2, 5.12, 5.07, 5.1

Round the decimal as specified.

30.) 92.0327 (nearest hundredth)

31.) Use rounding to estimate each number, then find the sum $3.8 + 4.2 + 3.7$.

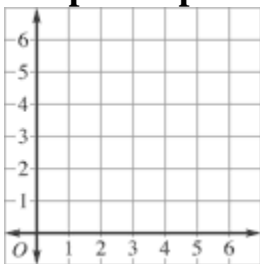
32.) Ground meat costs \$2.89 a pound. You buy 1.2 pounds in one package and 1.8 pounds in another. To the nearest cent, how much do you spend on meat?

Divide. Round your final answer to the nearest tenth if necessary.

33.) $7 \overline{) 24.76}$

34.) $0.24 \overline{) 156.8}$

Graph the point on the coordinate grid. Label A, and B.



35.) $A = (5, 3)$

36.) $B = (2, 4)$

Complete the statement.

$$37.) \frac{?}{9} = \frac{42}{54}$$

$$38.) \frac{7}{?} = \frac{35}{60}$$

$$39.) 3 \text{ yd } 2 \text{ ft} = \underline{?} \text{ ft}$$

$$40.) \frac{15 \text{ lb}}{\$3} = \frac{30 \text{ lb}}{?}$$

$$41.) \frac{120 \text{ mi}}{6 \text{ h}} = \frac{?}{18 \text{ h}}$$

Tell whether each number is *prime*, *composite*, or *neither*.

$$42.) 34$$

$$43.) 17$$

$$44.) 1$$

Find the GCF of the numbers. (Greatest Common Factor)

45.) 28, 42

46.) 30, 42, 54

Find the LCM of the numbers. (Least Common Multiple)

47.) 6, 8, 12

48.) Three different brands of fettuccini noodles were measured. The thicknesses of noodles from the brands were $\frac{7}{32}$ inch, $\frac{3}{16}$ inch, and $\frac{2}{8}$ inch. Put the fractions in order from least to greatest.

49.) Write $\frac{19}{4}$ as a mixed number AND as a decimal.

50.) Write 5.4 as a mixed number in simplest form AND as an improper fraction.

51.) Write “**three and two eighths**” as a decimal AND as an improper fraction.

Find the sum. (Simplify answers.)

52.) $\frac{7}{8} + \frac{3}{4}$

53.) $4\frac{1}{3} + 2\frac{5}{12}$

Find the difference. (Simplify answers.)

54.) $1\frac{2}{3} - \frac{5}{6}$

55.) $2\frac{1}{6} - 1\frac{1}{4}$

56.) You cut $3\frac{1}{4}$ acres of grass on Saturday and $2\frac{2}{5}$ acres on Sunday. How much grass did you cut?

Add or subtract the measures of time. (Be careful when borrowing units.)

57.)
$$\begin{array}{r} 7 \text{ h } 15 \text{ min } 35 \text{ sec} \\ - 3 \text{ h } 30 \text{ min } 42 \text{ sec} \\ \hline \end{array}$$

58.) A preschool child attends school from 9:15 A.M. to 1:35 P.M. How long is she in school?

59.) A computer programmer types 75 words in 5 minutes. Write the unit rate. (Words per ONE minute.)

Solve the proportion.

60.) $\frac{x}{6} = \frac{13}{39}$

61.) $\frac{14}{35} = \frac{y}{10}$

Write the decimal as a percent.

62.) 0.36

63.) 0.02

Write the fraction as a percent.

64.) $\frac{2}{5}$

65.) $\frac{3}{25}$

66.) A survey at a middle school said that $\frac{3}{5}$ of the students had a computer at home. What percent of students did **NOT** have a computer at home?

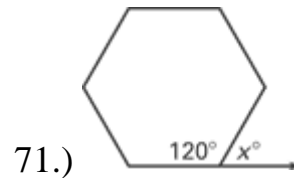
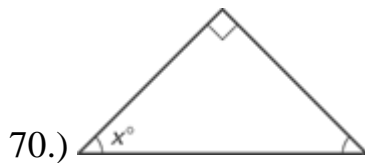
Find the percent of the number.

67.) 20% of 60

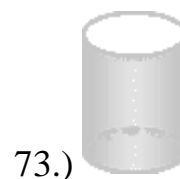
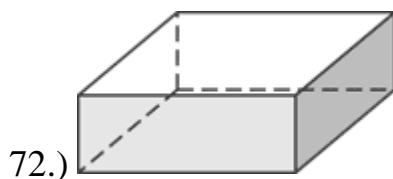
68.) 16% of 15

69.) Tell whether the angle measures 62° , 62° , and 56° are those of a triangle. If so, classify the triangle as *acute*, *right*, or *obtuse*.

Find the value of x .



Classify (name) the solid.



74.) Order the integers $-1, -7, 0, 3, -2$ from least to greatest.

Find the absolute value of the number.

75.) -10

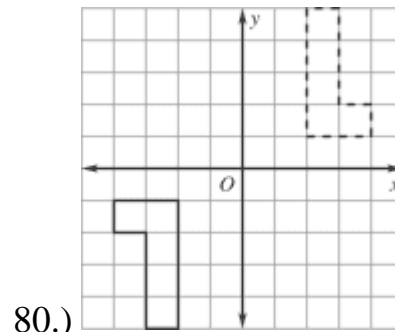
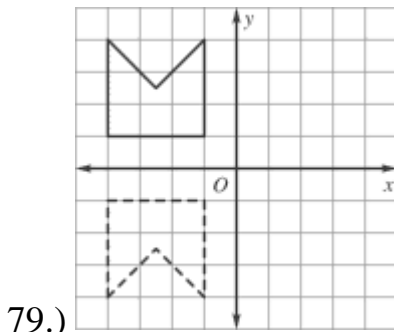
76.) 13

Find the difference. Change each statement to the correct addition statement first by adding the opposite of the second number.

77.) $13 - (-23)$

78.) $-27 - 32$

Tell whether the transformation is a *translation (slide)*, a *reflection (flip)*, or a *rotation (turn)*.



Write the sentence as an equation. **DO NOT SOLVE.** Order of the terms is important!

81.) A number m decreased by 7 is 9.

82.) A number j divided by 6 is 5.

Solve the equation. (Show all inverse steps as complete equations correctly.)

83.) $x + 16 = 31$

84.) $w - 36 = 17$

85.) $24w = 72$

86.) $4 = \frac{y}{12}$