

Chapter 6 Test Study Guide (6 Math)

Name Key

1.) Al had 6 gallons of paint. He used the paint to 4 congruent walls. How much paint did each wall take?

$$6 \div 4 = 1.5 \text{ gals / wall}$$

2.) Evaluate $-3 \cdot 5 + -4 \div -2 - 2^2$

$$\begin{aligned} & -3 \cdot 5 + -4 \div -2 - 2^2 \\ & -15 + -4 \div -2 - 4 \\ & -15 + 2 - 4 \\ & -13 - 4 = -17 \end{aligned}$$

3.) Is the product positive or negative? $-2 \cdot 4 \cdot 5 \cdot -1 \cdot -5$

Negative

4.) Write $1.5 \times 2.5 \times 2.5 \times 1.5 \times 2.5 \times 2.5$ with exponents.

$$1.5^2 \cdot 2.5^4$$

5.) What is $6 \times 6 \times 6 \times 6$ written in exponential form?

$$6^4$$

6.) Write 62,345,019 in expanded notation. (using powers of ten).

$$6 \cdot 10^7 + 2 \cdot 10^6 + 3 \cdot 10^5 + 4 \cdot 10^4 + 5 \cdot 10^3 + 0 \cdot 10^2 + 1 \cdot 10^1 + 9 \cdot 10^0$$

7.) Find the product $.35 \cdot 2.5$ Show all your work!

$$\begin{array}{r} .35 \\ 2.5 \\ \hline 175 \\ 700 \\ \hline 8.75 \end{array}$$

8.) Find the product $-3.35 \cdot 2.02$ Show all your work!

$$\begin{array}{r} -3.35 \\ 2.02 \\ \hline 670 \\ 0000 \\ 67000 \\ \hline -6.7670 \end{array}$$

9.) What is 25% of 128? Show what information you gave your calculator.

$$.25 \cdot 128 = 32$$

10.) Find $\frac{2}{5}$ of 22. Show your work!

$$\frac{2}{5} \cdot \frac{22}{1} = \frac{44}{5} = 8 \frac{4}{5}$$

11) What is the area of a desktop that is 2' by $1\frac{2}{3}$ '? Show your work!

$$2 \times 1\frac{2}{3} = \frac{11}{3} = 3\frac{2}{3} \text{ ft}^2$$

12) A pasture is $2\frac{1}{2}$ times as long as it is wide. The shorter side of the pasture is 32 meters, what is the area of the pasture? Draw a picture if it will help you understand the problem.

wide: 32

length: $(32 \cdot 2) + 16 = \underline{80}$

$$\begin{array}{r} 32 \\ \times 80 \\ \hline 00 \\ 2560 \\ \hline 2560 \text{ meters} \end{array}$$

13) What is the total area of a hotel room with a 5' x 6' bathroom, a 2.5' x 4 foot hallway, and a 2.5' x 4 foot closet in addition to a 10' x 16' bedroom?

$$\begin{array}{r} 30 \\ 10 \\ 10 \\ 160 \\ \hline 210 \text{ ft}^2 \end{array}$$

14) A company that creates surveys expects 5.2% of the people contacted to complete a survey will do it. If 6,000 people are contacted about the survey, how many completed responses can they expect to get?

$$.052 \times 6000 = 312$$

15) In her savings account, Ramona deposits \$150 each month and has a monthly automatic withdrawal of \$35 for her gym membership.

a. Is she gaining or losing money each month?

Gaining

b. She starts the year with 0. What will the balance in her savings account be at the end of the year if these are the only transactions that occur each month?

$$12 \cdot (150 - 35) = 12 \cdot 115 = 1380$$

$$\begin{array}{r} 1150 \\ 230 \\ \hline 1380 \end{array}$$

16) How many outfits can you make from 7 pairs of pants and 9 shirts?

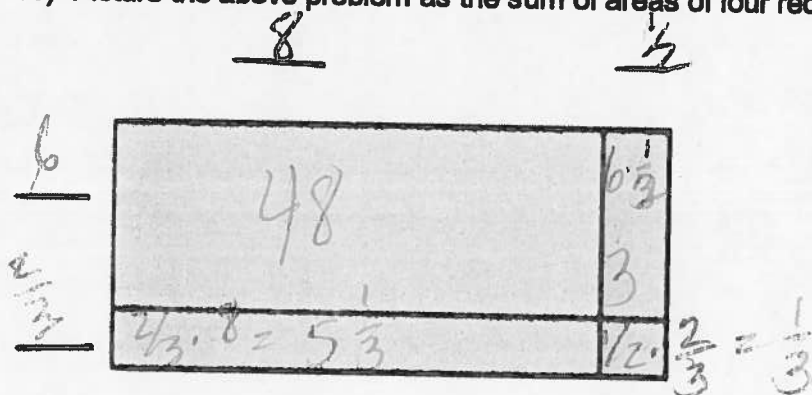
$$7 \times 9 = 63$$

Find the product:

17) $8\frac{1}{2} \cdot 6\frac{2}{3}$

$$\frac{17}{2} \cdot \frac{20}{3} = \frac{170}{3} = 56\frac{2}{3}$$

18) Picture the above problem as the sum of areas of four rectangles.



$$\begin{array}{r} 48 \\ 3\frac{1}{3} \\ 5\frac{1}{3} \\ \frac{1}{3} \\ \hline 56\frac{2}{3} \end{array}$$

