

Chapter 2 Practice Test

Date _____ Period _____

Translate the following into an equation.

1) a number increased by 9 is equal to 27

- A) $9^n = 27$ B) $n^3 = 27$
C) $n + 9 = 27$ D) $2n = 27$

Translate the following equation into a verbal sentence.2) $n \cdot 7 = 18$

- A) n squared is equal to 18
B) the difference of n and 7 is equal to 18
C) the product of n and 7 is equal to 18
D) the sum of n and 7 is equal to 18

Solve each equation.3) $-240 = 16r$

4) $\frac{x}{20} = \frac{1}{10}$

5) $16n = -112$

6) $2r - 5r = -6$

7) $b - 3b = 6$

8) $|x + 4| = 8$

Solve each proportion.

9) $\frac{8}{6} = \frac{5}{x}$

10) $\frac{n}{6} = \frac{9}{2}$

Solve each equation.

11) $6 + 3x + x = 4 + 6x - 4x$

12) $-2(5 - 5n) = -3(1 - 5n) - 4n$

13) $5(3x - 6) + 6(5 + 3x) = -3x - 2x$

Solve each equation for the indicated variable.

14) $\frac{m}{a} = p - n$, for a

15) $mx = \frac{p}{n}$, for x

Find each percent change. State if it is an increase or a decrease.

16) From 12 to 18

17) From 17 to 19

18) Beth wants to make a 50% saline solution. She has already poured 3 L of a 70% saline solution into a beaker. How many L of a 35% saline solution must she add to this to create the desired mixture?

19) 1 lb of bleached flour which costs \$7/lb was combined with 4 lb of unbleached flour which costs \$2/lb. Find the cost per lb of the mixture.

20) An aircraft carrier left Diego Garcia and traveled west at an average speed of 8 mph. A container ship left one hour later and traveled in the same direction but with an average speed of 10 mph. How long did the aircraft carrier travel before the container ship caught up?

Answers to Chapter 2 Practice Test (ID: 5)

1) C

5) $\{-7\}$

9) $\left\{\frac{15}{4}\right\}$

13) $\{0\}$

17) 12% increase

2) C

6) $\{2\}$

10) $\{27\}$

14) $a = \frac{m}{p-n}$

18) 4 L

3) $\{-15\}$

7) $\{-3\}$

11) $\{-1\}$

15) $x = \frac{p}{mn}$

19) \$3/lb

4) $\{2\}$

8) $\{4, -12\}$

12) $\{-7\}$

16) 50% increase

20) 5 hours