2.4.28 The Multiplication Principle of Equality

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Solve.

1) $-9a = 27$ 1) _____
A) -3 B) -36 C) 1 D) 36

2) $\frac{4}{5}x = 16$ 2) _____
A) $\frac{76}{5}$ B) 20 C) $\frac{64}{5}$ D) $\frac{84}{5}$

3) $\frac{2}{3}t = -\frac{1}{3}$ 3) _____
A) $\frac{1}{2}$ B) 2 C) $-\frac{1}{2}$ D) -2

4) $5r + 4 = 39$ 4) _____
A) 30 B) 34 C) 7 D) 3

5) $6(4x - 1) = 24$ 5) _____
A) $\frac{23}{24}$ B) $\frac{25}{24}$ C) $\frac{5}{4}$ D) $\frac{3}{4}$

6) $16x + 8(x + 1) = 24(x + 1) - 16$ 6) _____
A) no solution B) 0
C) all real numbers D) 1

Use the multiplication principle of equality to eliminate the fractions or decimals; then solve.

7) $\frac{13}{10}x + \frac{2}{5} = \frac{6}{5}x$ 7) _____
A) -16 B) 16 C) 4 D) -4

8) $\frac{1}{5}x + \frac{6}{5} = \frac{1}{7}x + \frac{8}{7}$ 8) _____
A) -2 B) 2 C) -1 D) 1

9) $\frac{1}{4}(y - 2) = \frac{5}{4} - y$ 9) _____
A) $\frac{7}{2}$ B) $-\frac{7}{3}$ C) $-\frac{7}{2}$ D) $\frac{7}{5}$

10) $1.2x - 2.7 = 0.8x - 0.74$ 10) _____
A) 4.9 B) 4.851 C) -0.204 D) 4.89

Solve.

11) $10 - 5x = 10x - 3x - 98$ 11) _____

A) -44 B) $\frac{49}{6}$ C) 9 D) -49

Use the multiplication principle of equality to eliminate the fractions or decimals; then solve.

12) $0.4 - 8.9y - 2.9y = 1 - 11.8y - 0.6$ 12) _____

A) 0.4 B) -11.8

C) all real numbers D) no solution

Solve.

13) $6x - 7 + 4(x + 1) = 6x - 4$ 13) _____

A) 2 B) $-\frac{3}{2}$ C) $-\frac{1}{4}$ D) 6

14) $-2(x + 3) + 93 = 7x - 9(x - 5)$ 14) _____

A) all real numbers B) no solution

C) 48 D) 138

Use the multiplication principle of equality to eliminate the fractions or decimals; then solve.

15) $1.4x + 4.7 = 0.7x + 0.22$ 15) _____

A) -6.5 B) 0.156 C) -6.4 D) -7.04

Solve the problem.

16) The perimeter of a rectangular garden is to be 36 ft. Find the length if the width is 6 ft. (Use $P = 2l + 2w$) 16) _____

A) 12 ft. B) 10 ft. C) 9 ft. D) 11 ft.

17) The area of a rectangular garden is to be 128 $ft.^2$. Find the length if the width must be 8 ft. (Use $A = lw$) 17) _____

A) 18 ft. B) 120 ft. C) 15 ft. D) 16 ft.

Answer Key
Testname: UNTITLED1

1) A
2) B
3) C
4) C
5) C
6) C
7) D
8) C
9) D
10) A
11) C
12) C
13) C
14) B
15) C
16) A
17) D