

**Solve.**

- 1) Write the equivalent decimal and percent for  $\frac{1}{20}$ .
- 2) In a particular city,  $\frac{7}{50}$  of the residents subscribe to the local newspaper. Write this fraction as a percent.
- 3) 75% of 60 is what number?
- 4) 30% of what number is 90?
- 5) 11 is what percent of 50?
- 6) One day 200 teachers were sick with the flu. If this were 80% of the total number of teachers, how many teachers were there altogether?
- 7) In a recent survey of 2500 people, 50 said that their favorite color of car was blue. What percent of the people surveyed liked blue cars?
- 8) The sales tax on the purchase of a tractor is \$3589.84. If the tax rate is 9.2%, find the purchase price of the tractor.
- 9) How much commission will an agent make on the sale of a \$538,900 house if she receives 1.1% of the selling price?
- 10) A \$310 painting is on sale at 35% off. Find the sale price.
- 11) Find the simple interest when: Principal = \$810, Rate = 6.5%, Time = 4 years
- 12) Corrin borrows \$3800 and agrees to pay it back in 8 years. If the simple interest rate is 11%, find the total amount she pays back.

**Simplify the expression by combining like terms.**

13)  $6b - 4b + 2$

14)  $8x + 7 + 4x + x + 3$

**Multiply.**

15)  $3(7x + 6)$

**Simplify the expression.**

16)  $-2(5y + 4) - 4$

17)  $7x - 3(5 - x) + 36$

18)  $3(-2x + 2) - 5(x - 3)$

**Solve.**

19)  $x + 5 = -28 + 9$

20)  $11w = 10 + 10w$

21)  $5x - 4x - 8 = -8$

22)  $0.4x = -40$

23)  $-\frac{1}{5}r = 2$

**Solve.**

24)  $-6x + 7x = 5$

25)  $8x - 12x = 42 - 18$

26)  $\frac{5}{6}x = 33 + 7$

**Solve the equation.**

27)  $\frac{1}{4}x + 40 = 0$

28)  $-2x - 4 = 10$

29)  $\frac{1}{5}x + 7 = 3$

30)  $\frac{5}{6}n = \frac{1}{6}n + \frac{2}{3}$

$$31) 1.4x + 1.6 = -31.3 + 6.1x$$

$$32) 9x + 29 = 2x + 1$$

$$33) 6(x - 5) - (5x - 9) = 8$$

$$34) 3(y + 2) = 4(y - 7)$$

**Solve.**

35) Nine times a number, added to 5 is 23. Find the number.

**Solve the linear equation.**

$$36) 12(5x - 4) = 5x - 4$$

$$37) \frac{x}{2} = \frac{x}{9} + \frac{9}{2}$$

$$38) \frac{x+8}{4} + \frac{x-3}{2} = \frac{5}{4}$$

$$39) 1.4x + 4.4 = 0.8x + 1.46$$

$$40) -3(x - 3) - 39 = 3x - 6(x + 2)$$

$$41) 25x + 3(x + 1) = 28(x + 1) - 25$$

**Translate the sentence into a mathematical statement. Do not solve the equation.**

42) If 3 times a number is added to  $-6$ , the result is equal to 9 times the number.

## Answer Key

Testname: N48 PRACTICE TEST CH6 - 8\_INT 17

- 1) 0.05; 5%
- 2) 14%
- 3) 45
- 4) 300
- 5) 22%
- 6) 250 teachers
- 7) 2%
- 8) \$39,020.00
- 9) \$5927.90
- 10) \$201.50
- 11) \$210.60
- 12) \$7144
- 13)  $2b + 2$
- 14)  $13x + 10$
- 15)  $21x + 18$
- 16)  $-10y - 12$
- 17)  $10x + 21$
- 18)  $-11x + 21$
- 19) -24
- 20) 10
- 21) 0
- 22) -100
- 23) -10
- 24) 5
- 25) -6
- 26) 48
- 27) -160
- 28) -7
- 29) -20
- 30) 1
- 31) 7
- 32) -4
- 33) 29
- 34) 34
- 35) 2
- 36)  $\left\{\frac{4}{5}\right\}$
- 37)  $\left\{\frac{81}{7}\right\}$
- 38) {1}
- 39) {-4.9}
- 40) contradiction
- 41) identity
- 42)  $3x + (-6) = 9x$