

Unit 1 Test Review

Date _____ Period _____

Write an algebraic EXPRESSION for each word phrase.

1) Four less than a number

2) 3 times the sum of a number and 5

Write an algebraic EQUATION for each word phrase. Do not solve.

3) The quotient of a number and 18 is 6.

4) 3 less than the product of 5 and a number is 12

Solve each one-step equation.

5) $x - 18 = -35$

6) $13 + k = 25$

7) $\frac{x}{10} = -6$

8) $-36 = 4x$

Solve each two-step equation.

$$9) -5 + \frac{n}{10} = -4$$

$$10) \frac{k-7}{4} = -1$$

Solve each multi-step equation.

$$11) 3(4b - 2) = 42$$

$$12) 3(1 - 4x) - 1 = 50$$

$$13) 5 - 5k = -5(k - 1)$$

$$14) 13 + 4x = 5x + 7$$

$$15) 4n + 4 = -4n + 8n$$

$$16) 6a + 1 = -7(-4a + 3)$$

$$17) -6 - 3m = -6(-3m - 6)$$

$$18) 2(n - 3) - 4(1 - 3n) = 14n - 10$$

Solve each proportion.

$$19) \frac{3}{9} = \frac{2}{p}$$

$$20) \frac{5}{x - 3} = \frac{2}{4}$$

$$21) \frac{b-7}{b-2} = \frac{3}{2}$$

$$22) \frac{6}{k-6} = \frac{4}{k-1}$$

Solve each equation for the indicated variable.

$$23) g = xc, \text{ for } x$$

$$24) g = a + c, \text{ for } a$$

$$25) z = -3a + 3, \text{ for } a$$

$$26) 2m + 4x = -5, \text{ for } x$$

Unit 1 Test Review

Date _____ Period _____

Write an algebraic EXPRESSION for each word phrase.

1) Four less than a number

$$n - 4$$

2) 3 times the sum of a number and 5

$$3(n + 5)$$

Write an algebraic EQUATION for each word phrase. Do not solve.

3) The quotient of a number and 18 is 6.

$$\frac{n}{18} = 6$$

4) 3 less than the product of 5 and a number is 12

$$5n - 3 = 12$$

Solve each one-step equation.

5) $x - 18 = -35$

$$\{-17\}$$

6) $13 + k = 25$

$$\{12\}$$

7) $\frac{x}{10} = -6$

$$\{-60\}$$

8) $-36 = 4x$

$$\{-9\}$$

Solve each two-step equation.

$$9) -5 + \frac{n}{10} = -4$$

{10}

$$10) \frac{k-7}{4} = -1$$

{3}

Solve each multi-step equation.

$$11) 3(4b - 2) = 42$$

{4}

$$12) 3(1 - 4x) - 1 = 50$$

{-4}

$$13) 5 - 5k = -5(k - 1)$$

{ All real numbers. }

$$14) 13 + 4x = 5x + 7$$

{6}

$$15) 4n + 4 = -4n + 8n$$

No solution.

$$16) 6a + 1 = -7(-4a + 3)$$

{1}

$$17) -6 - 3m = -6(-3m - 6)$$

{-2}

$$18) 2(n - 3) - 4(1 - 3n) = 14n - 10$$

{ All real numbers. }

Solve each proportion.

$$19) \frac{3}{9} = \frac{2}{p}$$

{6}

$$20) \frac{5}{x-3} = \frac{2}{4}$$

{13}

$$21) \frac{b-7}{b-2} = \frac{3}{2}$$
$$\{-8\}$$

$$22) \frac{6}{k-6} = \frac{4}{k-1}$$
$$\{-9\}$$

Solve each equation for the indicated variable.

$$23) g = xc, \text{ for } x$$

$$x = \frac{g}{c}$$

$$24) g = a + c, \text{ for } a$$

$$a = g - c$$

$$25) z = -3a + 3, \text{ for } a$$

$$a = \frac{-z + 3}{3}$$

$$26) 2m + 4x = -5, \text{ for } x$$

$$x = \frac{-2m - 5}{4}$$