

Chapter 4 Test

Multiple Choice

For each question, select the best answer.

1. To solve the equation $2x = -30$:
A multiply by 2 B divide by 2
C subtract 2 D add 2
2. The solution to $2p - 5 = -23$ is:
A $p = -18$ B $p = 18$
C $p = -9$ D $p = 9$
3. The solution to $\frac{n-1}{7} = -4$ is:
A $y = -27$ B $y = 27$
C $y = -29$ D $y = 29$
4. When y is isolated, the equation $x = 3(2y - 1) + 2$ is written:
A $y = \frac{x+1}{6}$ B $y = \frac{x-1}{6}$
C $y = 6(x-1)$ D $y = 6(x+1)$
5. The equation $-2x + y + 7 = 0$, written in slope y -intercept form is:
A $y = -2x + 7$ B $y = 2x + 7$
C $y = -2x - 7$ D $y = 2x - 7$

Short Response

6. Solve each equation.
a) $6x = -72$ b) $10p + 2 = -28$
c) $3t - 27 = 0$ d) $-1 = 2y - 3$
7. Solve each equation.
a) $\frac{s-2}{5} = 3$
b) $\frac{2}{k} = -4$
c) $\frac{1}{4}(2-x) = 3$
d) $\frac{1}{2}(x+8) = 4$

8. Write each equation in slope y -intercept form.

- a) $6x - 2y - 8 = 0$
- b) $9x - y - 3 = 0$
- c) $x - y = 0$
- d) $2x + y = 0$

9. If the line $2x + 7y + C = 0$ passes through $(-3, 4)$, determine the value of C .

10. If the line $x + By + 2 = 0$ passes through $(0, -1)$, determine the value of B .

Extended Response

11. Jamie has \$1.65 to spend on bubble gum. Each stick of gum costs \$0.15.
a) Write an equation showing the relationship between the total cost in dollars, C and the number of sticks of gum purchased, n .
b) If Jamie wanted to buy 9 sticks, how much money would he need to use?
c) What is the most number of sticks of gum that Jamie can buy with her budget?
12. Joe took out a car loan for \$10 500 at an annual interest rate of 6.5%. The amount owed is represented by the equation $A = 10500 + (0.065 \times 10500)n$, where A is the total amount that Joe has borrowed originally, and n is the number of years.
a) What will Joe owe after 4 years?
b) What will Joe owe after 10 years?
c) If Joe wanted to take a loan for 15,000, how many years would he have to owe the company.