

Unit 6: Linear Equations and Graphing

1. Solve for an unknown:

a) $5x + 4 = 44$

b) $7 + 2x = 1$

2. Solve for an unknown:

a) $13 = 3x - 2$

b) $-2x + 8 = 0$

3. Solve **algebraically** and **verify**

a) $12b + 21 = 93$

b) $-8a + 11 = 27$

c) $-42 = 5c - 27$

d) $\frac{n}{3} - 2 = 10$

e) $\frac{t}{-9} + 8 = -5$

f) $-17 + \frac{n}{-3} = 9$

3. **Expand.**

a) $5(x + 6)$

b) $7(5 - e)$

c) $3(-x + 8)$

d) $-4(6 - e)$

e) $8(-2n + 4)$

f) $-4(-11y + 3)$

4. Solve each equation using **distributive property**. Verify the solution.

a) $4(p - 6) = -4$

b) $10(y + 3) = 10$

c) $-7(b + 6) = -84$

d) $-5(q - 11) = 70$

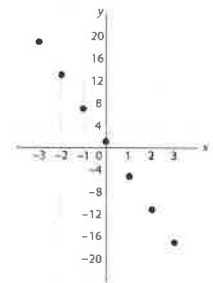
5. Create a **table of values** from -3 to 3 for $y = 2x - 5$

6. Identify the **linear rule** that matches a graph

Does this graph represent

$y = 5x - 1$ OR $y = -6x + 1$

- omit #6 -



7. The equation of a linear relation is: $y = -3x + 8$. Some **ordered pairs** in the relation are:

$(-1, 11), (0, 8), (1, \quad), (2, 2), (\quad, -1), (4, \quad)$ Find the missing numbers in the ordered pairs.

8. Can you solve **linear word problems**?

The cost of admission to a fair is \$10, plus \$3 per ride. An equation for this relation is

$C = 10 + 3r$, where r represents the number of rides a person goes on, and C represents the total cost of admission and rides.

a) Harvey went on 13 rides. How much did Harvey spend on admission and rides?

b) Stephanie spent \$31 on admission and rides. How many rides did Stephanie go on?