

Copy of 2-2: Linear Relations and Functions (Practice)

State whether each function is a linear function.

Write *yes* or *no*. Explain.

1. $h(x) = 23$

Write each equation in standard form. Identify *A*, *B*, and *C*.

5. $y = 7x - 5$

2. $y = \frac{2}{3}x$

6. $y = \frac{3}{8}x + 5$

3. $y = \frac{5}{x}$

7. $3y - 5 = 0$

4. $9 - 5xy = 2$

8. $x = -\frac{2}{7}y + \frac{3}{4}$

Copy of 2-2: Linear Relations and Functions (Practice)

Find the x -intercept and the y -intercept of the graph of each equation. Then graph the equation using the intercepts.

9. $y = 2x + 4$

10. $2x + 7y = 14$

11. $y = -2x - 4$

12. $6x + 2y = 6$

13. **MEASURE** The equation $y = 2.54x$ gives the length y in centimeters corresponding to a length x in inches. What is the length in centimeters of a 1-foot ruler?

14. **LONG DISTANCE** For Meg's long-distance calling plan, the monthly cost C in dollars is given by the linear function $C(t) = 6 + 0.05t$, where t is the number of minutes talked.

- a. What is the total cost of talking 8 hours? of talking 20 hours?
- b. What is the effective cost per minute (the total cost divided by the number of minutes talked) of talking 8 hours? of talking 20 hours?