

## Reviews

Each unit concludes with a review to test all skills covered in the unit. A total of six reviews with assessment-type items can be used as practice tests to measure performance.

8.AF.1-7, A1.L.1-1

### UNIT 3 REVIEW

## Linear Equations, Inequalities, and Functions

Read and solve each problem.

1 Does this equation have one solution, no solutions, or infinitely many solutions?

$$2(x - 3) = \frac{1}{2}(4x - 12)$$

Justify your answer.

2 Solve each equation and inequality. Show your work.

A  $-7w - 12 = 30$       C  $\frac{1}{6}x + 2 = 5$

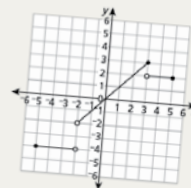
B  $2(y - 1) + 4(y - 3) > 9$       D  $-0.75(3 + 2z) + 1 \geq 13$

- 11 The graph shows how the length of a building's shadow at a certain time of day is related to the height of the building.



- A Does this graph describe a function? Explain why or why not.
- B Write an equation to model the relationship shown in the graph.
- C Explain the meaning of the variables in your equation.
- D According to your equation, if a building is 160 meters tall, what would be the length, in meters, of its shadow?

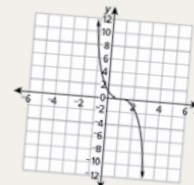
- 12 A relation is shown on the coordinate plane.



Mark True or False for each statement about the relation.

- |                                      | True                     | False                    |
|--------------------------------------|--------------------------|--------------------------|
| The relation is a function.          | <input type="checkbox"/> | <input type="checkbox"/> |
| The value -2 is in the domain.       | <input type="checkbox"/> | <input type="checkbox"/> |
| The value 3 is in the range.         | <input type="checkbox"/> | <input type="checkbox"/> |
| The domain includes $3 < x \leq 5$ . | <input type="checkbox"/> | <input type="checkbox"/> |
| The range includes $-2 \leq y < 3$ . | <input type="checkbox"/> | <input type="checkbox"/> |

- 13 A function is graphed on the coordinate plane.



A Is the function...