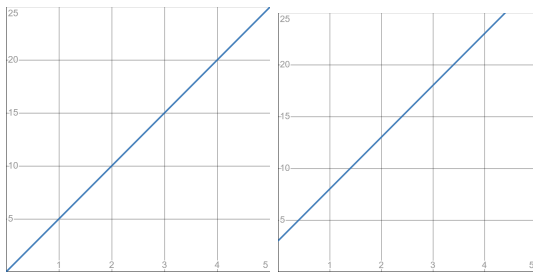


Lesson 2-5: Graph Proportional Relationships

1. The graph of a proportional relationship is a straight line through the origin.
2. Sample answer: Every proportional relationship has a constant of proportionality k and can be represented by the equation $y = kx$. So, when x is 0, $y = k \cdot 0 = 0$.
3. Sample answer: There is not enough information to determine whether Makayla is graphing a proportional relationship. The graph of a proportional relationship should contain points that form a straight line through the origin. There is no way to tell if Makayla will continue to plot points on the same line.

4.



5. Martin's graph; The graph is a straight line through the origin. Isabelle's graph is a straight line, but it doesn't pass through the origin.
6. Sample answer: On Martin's graph, $(3,15)$ means Martin pays \$15 to play 3 games.
7. $y = 5x$

8. a. Proportional; the graph is a straight line that passes through the origin.
b. NOT proportional; the graph passes through the origin but is not a straight line.
c. NOT proportional; the graph is a straight line but does not pass through the origin.
9. Yes; 100 boxes
10. No; there is no constant of proportionality.
11. a. The baker uses 0 cups of flour to make 0 cookies.
b. Sample answer: The point $(1,18)$ represents the unit rate of 18 cookies per cup of flour. The constant of proportionality is 18.

12. a. 0.2
b. Sample answer: $(1, 0.2)$
c. $y = 0.2x$
13. a. Bank A; Bank A exchanges \$1.00 for 5.1 kroner, and Bank B exchanges \$1.00 for 5 kroner.
b. 170 more kroner
14. No. The graph of a proportional relationship is a straight line through the origin. The graph shown passes through the origin, but it is not a straight line.
15. B, D, E