GRADE 7 MATH · CLASSWORK

Recognize Graphs of Proportional Relationships

SCORE / 25

01 Part A · Practice

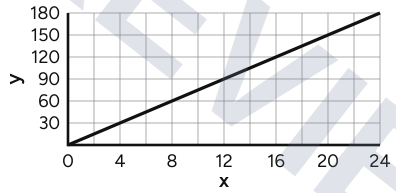
A proportional graph is a straight line through (0, 0); a steeper line has a greater constant of proportionality.

EXAMPLE

Line *A* **passes through** (0, 0) **and** (2, 8)**. Line** *B* **passes through** (0, 3) **and** (2, 7)**.**

1. *A*: straight, through the origin: proportional, $k = 8 \div 2 = 4$.
2. *B*: does not pass through (0, 0): not proportional.

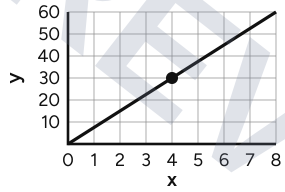
1 ●○○ Does the graph show a proportional relationship? Explain.



2 ●○○ Line 1 goes through (0, 0) and (1, 8). Line 2 goes through (0, 5) and (1, 13). Which line shows a proportional relationship? Give its *k*.

3 ●○○ Which equation matches the graph?

$y = \frac{2}{15}x$, $y = 7.5x$, $y = x + 7.5$



4 ●○○ Which equation has a graph that is a straight line through the origin: $y = 7x$ or $y = 3.5x + 3$? Give its *k*.

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Preview - the full worksheet and its answer key are at primeworksheet.com