



Slope as a unit rate

GRADE 8 MATH

Name _____

Date _____

Show your working. Include units on any rate.

WORKED EXAMPLE

Slope = change in y over change in x. It is the unit rate. Read the axis scale. Compare rates, never raw totals.

1. Find the slope of the line through (0,0) and (5,15).

FLUENCY

Show your thinking

Answer

2. Find the slope through (0,0) and (8,4).

FLUENCY

Show your thinking

Answer

3. A line goes through (0,8) and (4,0). Find its slope and say what the sign means.

APPLICATION

Show your thinking

Answer

4. Explain why slope is change in y over change in x, and not the other way round.

REASONING

Show your thinking

Answer

5. A y-axis goes up in 5s. A line rises 4 squares over a run of 2 squares. Find the slope.

APPLICATION

Show your thinking

Answer

6. Recipe A uses 6 cups of flour for 2 loaves. Recipe B's graph shows 12 cups for 5 loaves. Which uses more flour per loaf?

APPLICATION

Show your thinking

Answer

7. A printer's graph passes through (0,0) and (4,10). How many pages in 6 minutes?

APPLICATION

Show your thinking

Answer

8. $y = 3x$ and a table showing 10 for $x = 4$. Which has the greater unit rate?

REASONING

Show your thinking

Answer

9. Why must a proportional relationship pass through the origin?

REASONING

Show your thinking

Answer