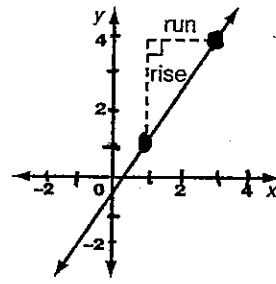


Interpret Lines

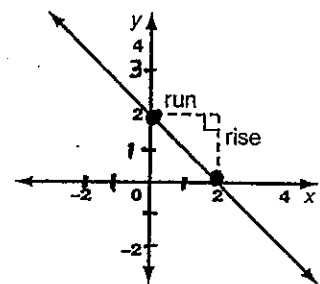
MATHEMATICS: Applying the Concepts

Key Concept

- For a straight line, slope = $\frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x}$
- When a line equation is in the form $y = ax + b$, the slope is a and the y -intercept is b .
- By changing one or both of the scales on the x - and y -axes, a line can appear to be steeper or flatter.

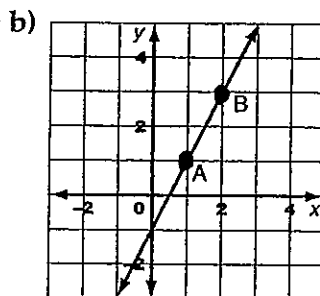
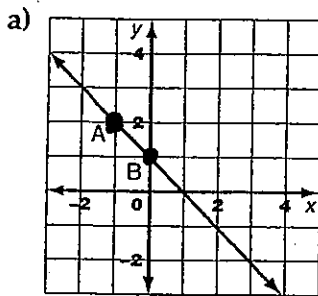


positive slope



negative slope

1. Use points A and B to determine the slope in each diagram.



2. Find the slope of the line that passes through each pair of points.

- a) $(4, -5)$ and $(8, 11)$ b) $(-3, 4)$ and $(-5, -6)$

3. State the slope and y -intercept for each linear equation.

- a) $y = 3x + 4$ b) $y = 2x - 3$
- c) $y = -\frac{2}{3}x + 1$ d) $y = -0.5x - 2$

4. Determine the slope of the roof.

