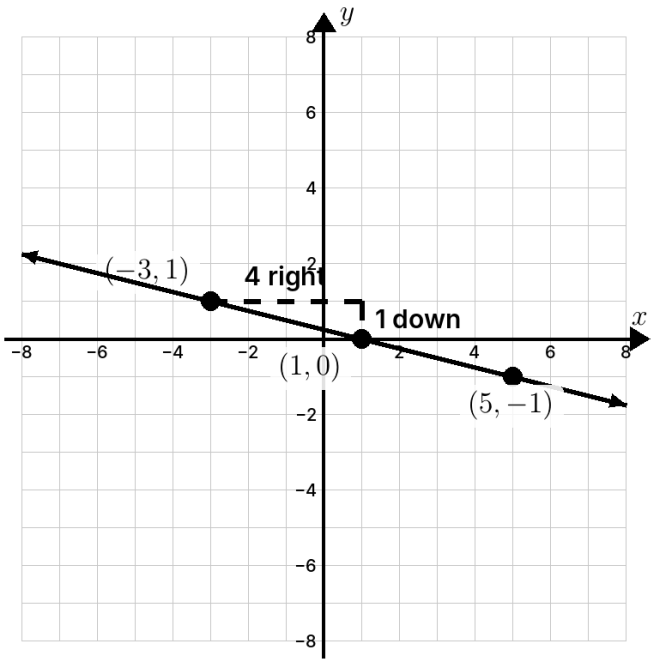
Step Along the Slope

GL06-V1 · storyboard · GL06 Use the slope: steps and points on one line. Read each picture with its sentences.

Picture 1



Slope $-\frac{1}{4}$:

4 right, 1 down

Then the same again.

1. Graph the line through negative 3, 1 with slope negative one quarter.
2. That means 4 to the right and 1 down.
3. That reaches the point 1, 0.
4. The same again gives 5, negative 1.
5. Then draw the line.

Picture 2

Trap $m = -\frac{1}{4}$

$\times$ 1 right, 4 down

✓ 4 right, 1 down

6. Watch for the trap: the slope the wrong way round.
7. The bottom number is the step across.

Picture 3

Which three of $A(32, 5)$, $B(24, 18)$, $C(22, 21)$, $D(17, 29)$ are on one line?

$$AB: \quad \frac{18-5}{24-32} = -\frac{13}{8}$$

$$AC: \quad \frac{21-5}{22-32} = -\frac{8}{5}$$

$$\boxed{AD: \quad \frac{29-5}{17-32} = -\frac{8}{5}}$$

A, C, D: one line

8. Which three of these four points are on one line?
9. Compare slopes from A.
10. A to B is negative 13 over 8.
11. A to C is negative 8 over 5.
12. And A to D is negative 8 over 5 again.
13. The same slope, so A, C and D are on one line.