10:03 | Gradients

Name: _____   **Class:** _____
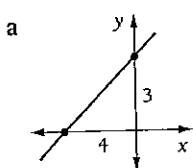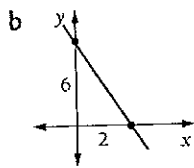

Examples

- Gradient (slope) = $\frac{\text{rise}}{\text{run}}$.
- Lines like ╱ are positive and like ╲ are negative.

1 Find the gradient of the line.

a

b

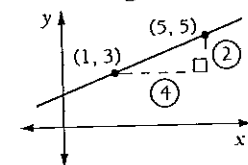Gradient = $\frac{3}{4}$

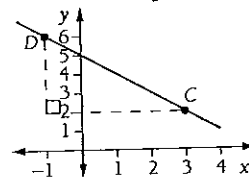Gradient = $-\frac{6}{2}$
= -3

2 Find the rise and run, then the gradient.

(5, 5)
(1, 3)

Gradient = $\frac{2}{4} = \frac{1}{2}$

3 Find the slope of CD.

Slope = $\frac{\text{rise}}{\text{run}} = -\frac{4}{4}$
= -1

Exercise

1 Find the gradient of each line from its graph.

a

b

c

d
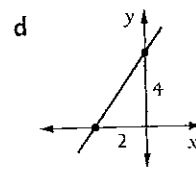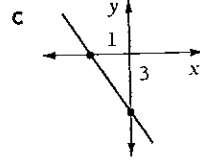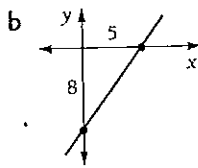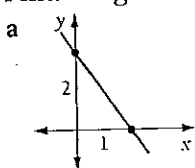
2 Find the rise and run for each triangle, then find the gradient of the line.

a (3, 3) (1, 0)

b (−4, −1) (2, −3)

c (5, 5) (−3, 1)

d (−2, 4) (4, 2)

e (4, 12) (0, 2)

f (3, 0) (−2, −5)

g (−3, 5) (−1, 2)

h (4, 3) (1, −1)
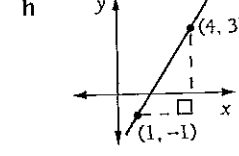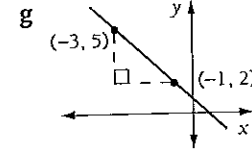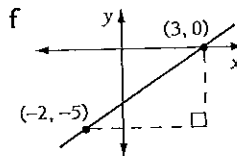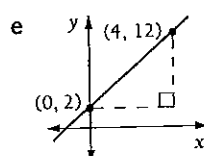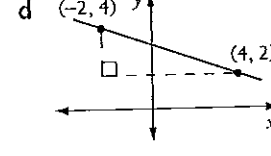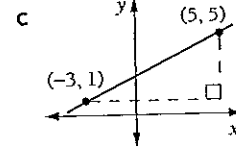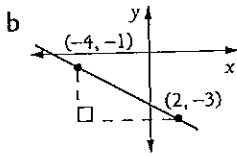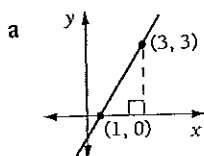
3 Find the slope of CD in each of the following.
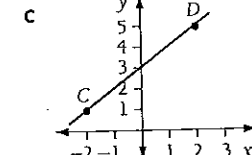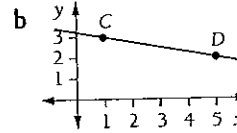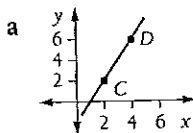
a

b

c

d

e

f

g

h
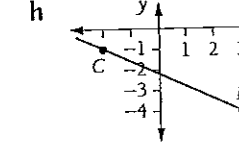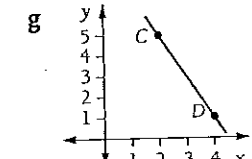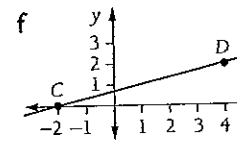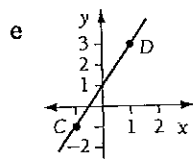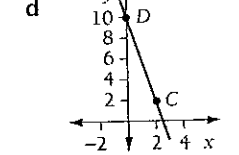
10:03 Gradients

1. a −2   b. $\frac{8}{5}$ c −3   d 2

2. a $\frac{3}{2}$ b −$\frac{1}{3}$ c $\frac{1}{2}$ d −$\frac{1}{3}$ e $2\frac{1}{2}$ f 1   g −$\frac{3}{2}$ h $\frac{4}{3}$

3. a 2   b −$\frac{1}{4}$ c 1   d −4   e 2   f $\frac{1}{3}$ g −2   h −$\frac{3}{5}$