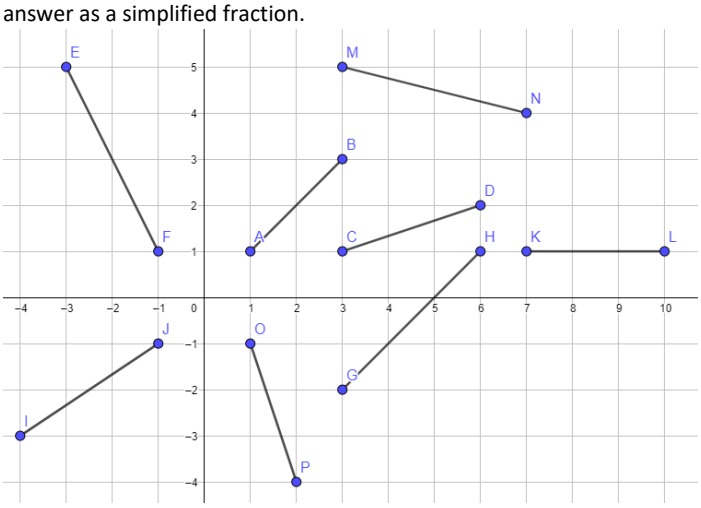
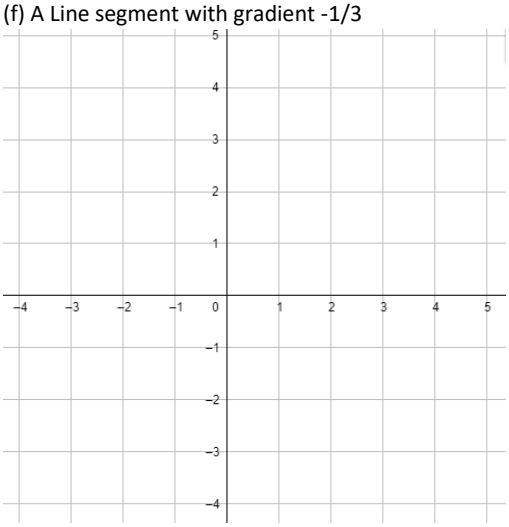
Gradients of a Line Segment – www.m4ths.com – Steve Blades

(1) Find the gradient of each line segment below. Give your answer as a simplified fraction.



(2) On the grid below draw the following line segments:
(a) A Line segment with gradient 2
(b) A Line segment with gradient 3
(c) A Line segment with gradient -1
(d) A Line segment with gradient ½
(e) A Line segment with gradient -4
(f) A Line segment with gradient -1/3



(3) Find the gradient of each line segment passing the given points
(a) A (3,4) and B (9,6)

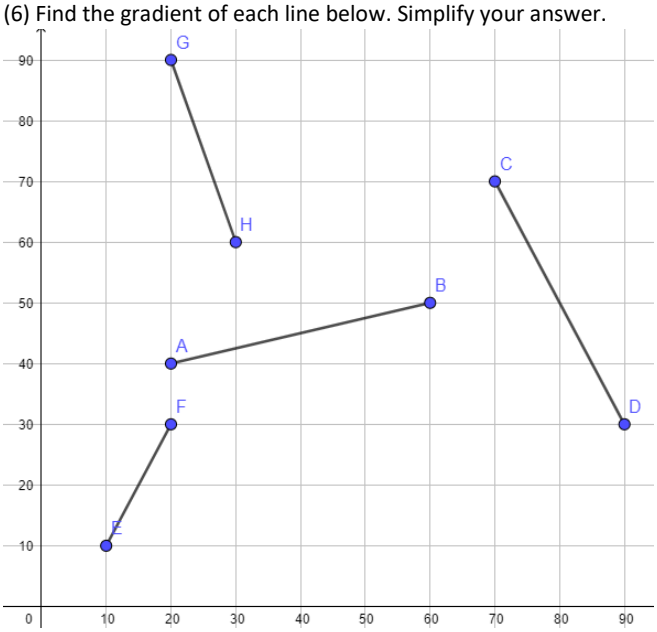
(b) C (1,6) and D (7,10)

(c) E (-1,6) and F (7,14)

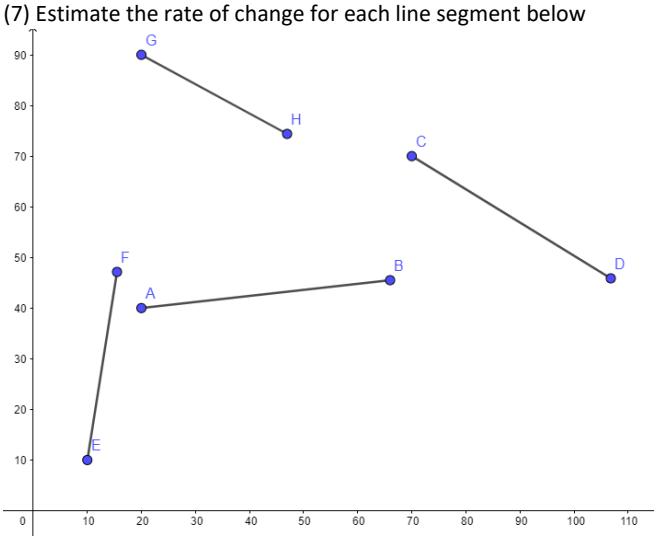
(4) A line has gradient of 4 and passes through A (1,2) and B(2,p). Find the value of p. A sketch may help.

(5) A line has gradient of 5 and passes through A (q,11) and B (15,21). Find the value of q. A sketch may help.

(6) Find the gradient of each line below. Simplify your answer.

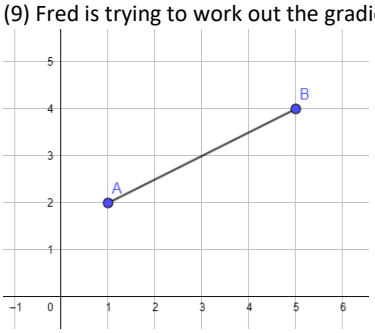


(7) Estimate the rate of change for each line segment below



(8) Write down a gradient that's steep than a gradient of ¼

(9) Fred is trying to work out the gradient of the line below



He does the calculation $\frac{5-1}{4-2} = 2$

Are his workings correct? You must explain your answer.