Scale Drawings - www.m4ths.com – Steve Blades ©

(1) The scale of a map is 1:200. That means for every 1cm on the map it's 200cm in real life. Some lines were drawn on a map. Find out what distance each line would represent in the real world. Give your answers in both cm and them in metres. The first one (a) is done for you.
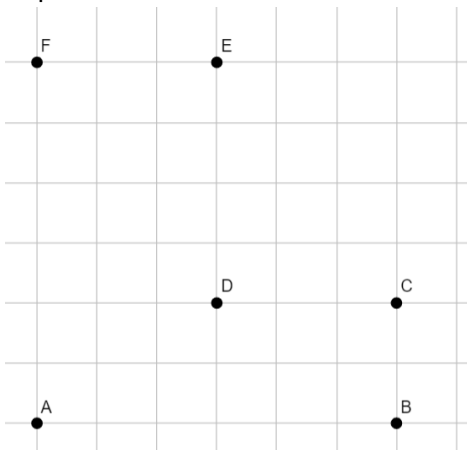
(a) 3cm on the map. 3 x 200 = 600. This is 600cm or 6m

(b) 5cm
(c) 7cm
(d) 9cm
(e) 100cm
(f) 1.2cm

(2) Some distances in the real world are measured. How long would the line need to be on the map above? The scale is 1:200. The first one is done for you.

(a) 1600 cm in real life. 1600 ÷ 200 = 8cm on the map.

(a) 800cm
(b) 2000cm
(c) 5 metres
(d) 20 metres

(3) One the grid below are some points. 1 square on the grid represents 40 metres in the real world.
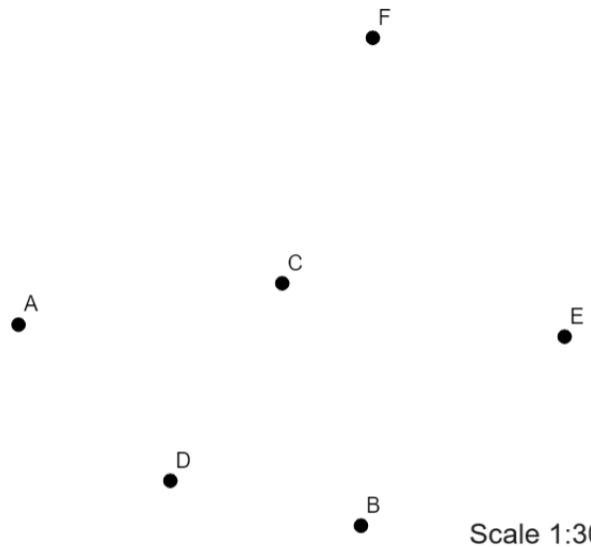
Find the distance in the real world between the following points:

(a) A to B   (b) B to C   (c) C to D
(d) D to E   (e) E to F   (f) F to A
(g) John walks from A to F past each of the other points. What is the shortest length he could have walked?
(h) Which point is due West of C?
(i) Which point is due North of D?
(j) Which point is due East of A?
(k) G is 80m due east of E. Plot G
(l) H is 60m due north of D. Plot H
(m) J is due south-east of C. Plot J

(4) Use the map below to find **ACCURATE** distances for the following:
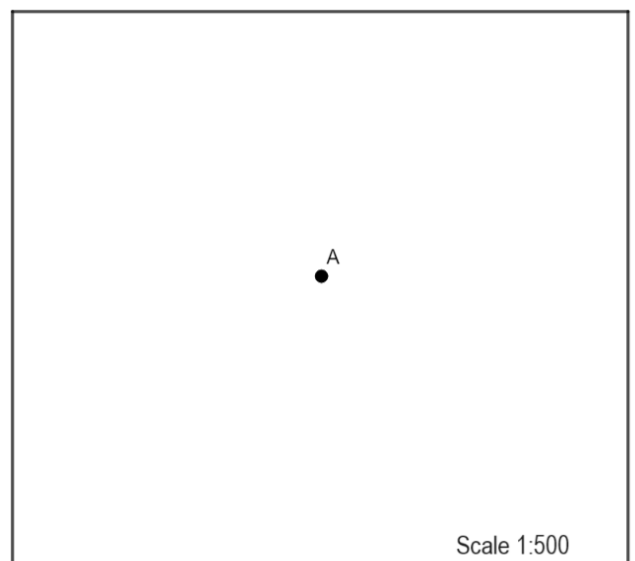
(a) A to D   (b) F to B   (c) E to C

Scale 1:30

(d) The point G is 60cm due south of F in the real world. Plot the point G on the map above.
(e) The point H is 1.2 metres east of A. Plot H on the map above.

(5) A model aircraft has the scale 1:72. Fred has a kit with the following pieces. Find out the length of the pieces for the actual aircraft. Give all answers in metres!

(a) Wing 6cm   (b) Tail 4.5 cm (c) Nose 2cm

(d) Fred knows that the windows on the aircraft in the real world are 3.6m long. Show that they would be 5cm in the model kit

(6) Use the map below to plot the following points

Scale 1:500

(a) B is 5 metres due North of A in the real world.
(b) C is 10 metres due East of A in the real world.
(c) D is 15 metres due West of A in the real world.
(d) E is 5 metres due East of B in the real world.