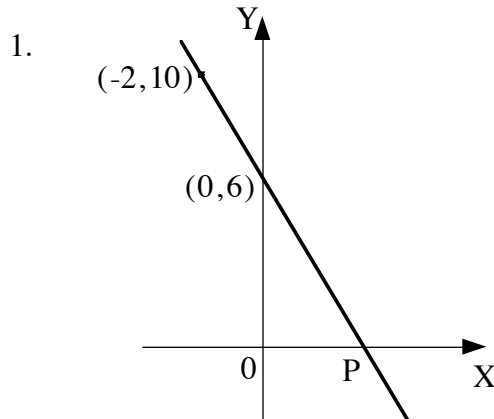


# HOME EXERCISE 13

Set out carefully all appropriate working.



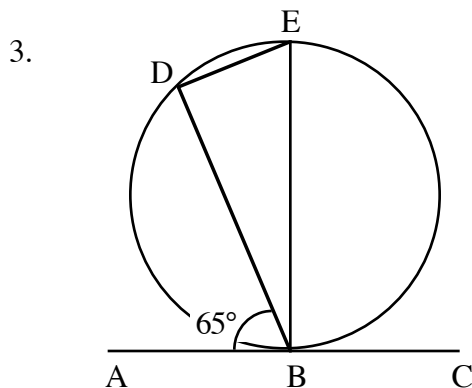
In the graph shown, the line passes through the points  $(-2, 10)$  and  $(0, 6)$ .

(a) Find the gradient of the line. (2)

(b) State the equation of the line. (2)

(c) **Hence** find the co-ordinates of P, the point where the line meets the X-axis. (2)

2. If  $h(t) = t^2 - 4$ , find:
- (a) the image of 5 under function h. (1)
  - (b)  $h(-3)$  (2)
  - (c) t given  $h(t) = -4$  (2)



The diagram shows a circle with diameter BE. The line AC is a tangent to the circle, touching the circle at the point B.

Point D lies on the circumference of the circle forming triangle BDE.

Angle ABC is  $65^\circ$  as shown.

Find the size of angle BED. (4)

**Give reasons for your calculations.**

4.

	brown	white
male	14	12
female	16	8

A group of 50 shop customers were questioned about the type of bread they preferred.

Their responses are summarised in the table.

(a) What is the probability that a person chosen at random from this group is male? (2)

**Answer as a fraction in simplest form.**

(b) In a sample of 300 shop customers, how many would be expected to be a female who preferred white bread? (3)

**Total 20 marks**