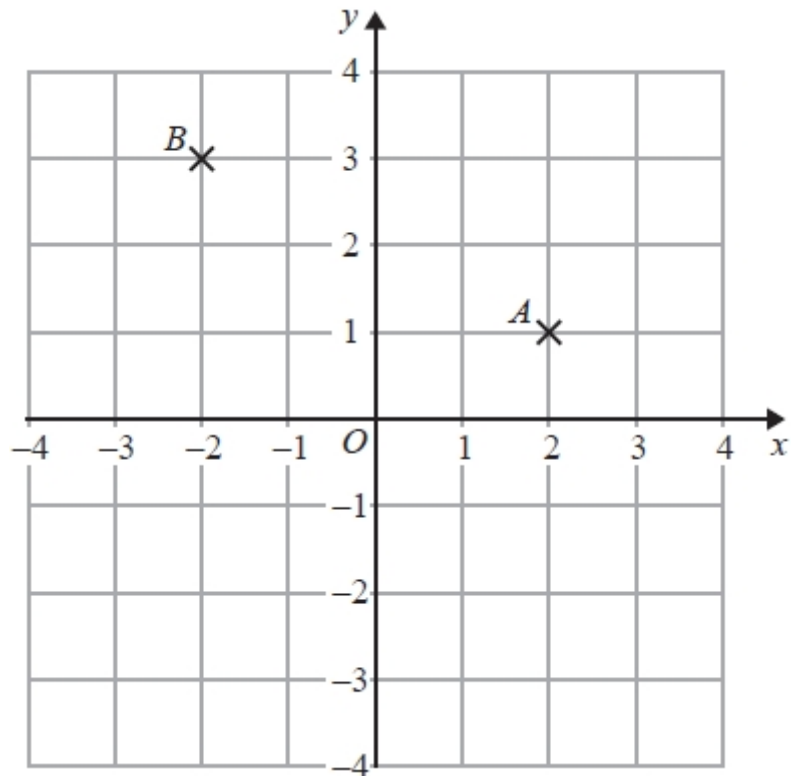


Questions

Q1.



(a) Write down the coordinates of the point *A*.

(.....,) (1)

(b) Write down the coordinates of the point *B*.

(.....,) (1)

(c) On the grid, mark with a cross (×) the point $(-3, -1)$.
Label this point *C*.

(1)

(d) On the grid, draw the line $x = 3$

(1)

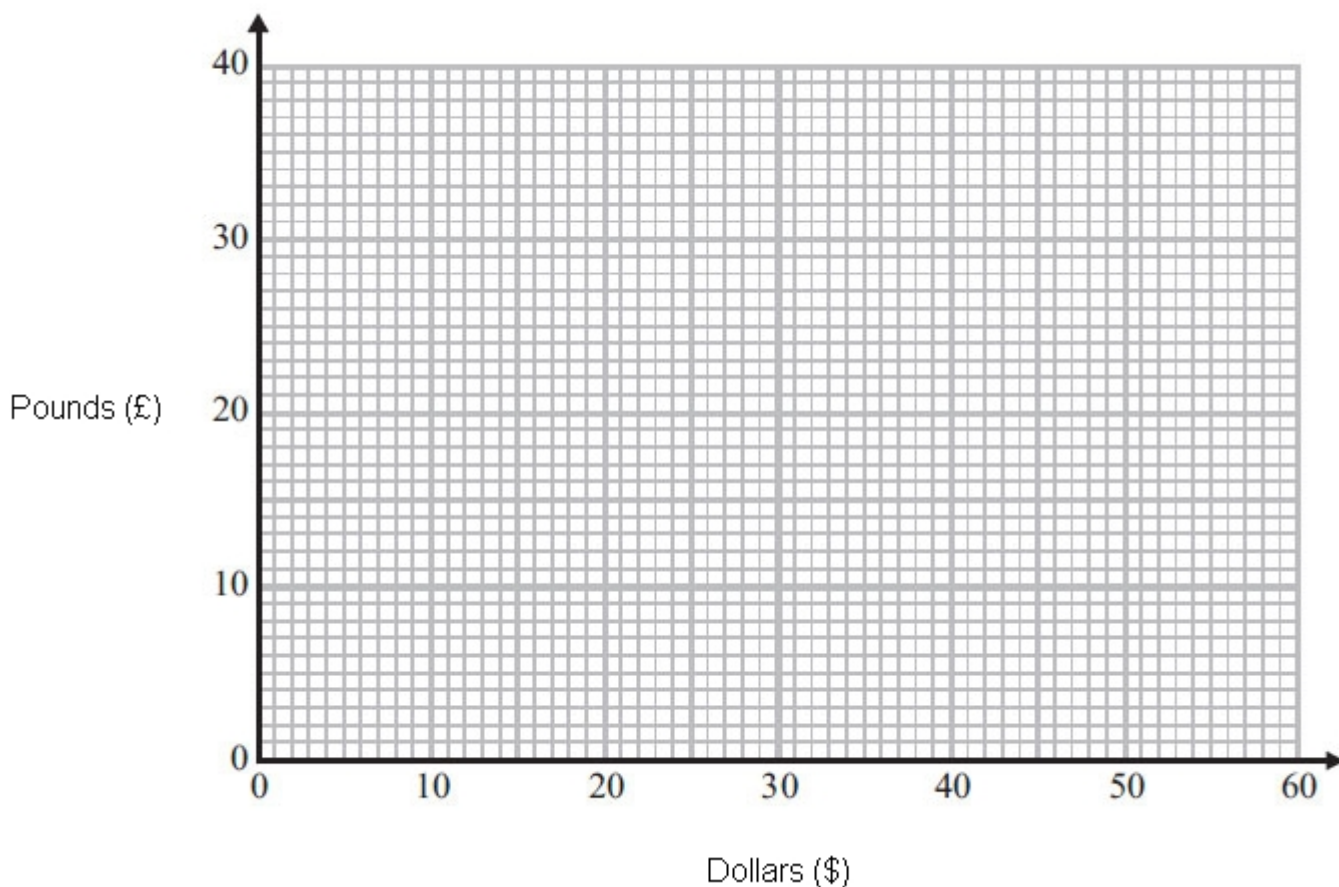
(Total for question = 4 marks)

Q2.

The table shows how much some amounts of money in dollars (\$) are when they are changed to pounds (£).

Dollars (\$)	0	15	30	45	60
Pounds (£)	0	10	20	30	40

(a) On the grid, use this information to draw a line graph to change between dollars and pounds.



(2)

(b) Use your line graph to change

(i) £25 into \$

\$

(ii) \$50 into £

£

(2)

(Total for Question is 4 marks)

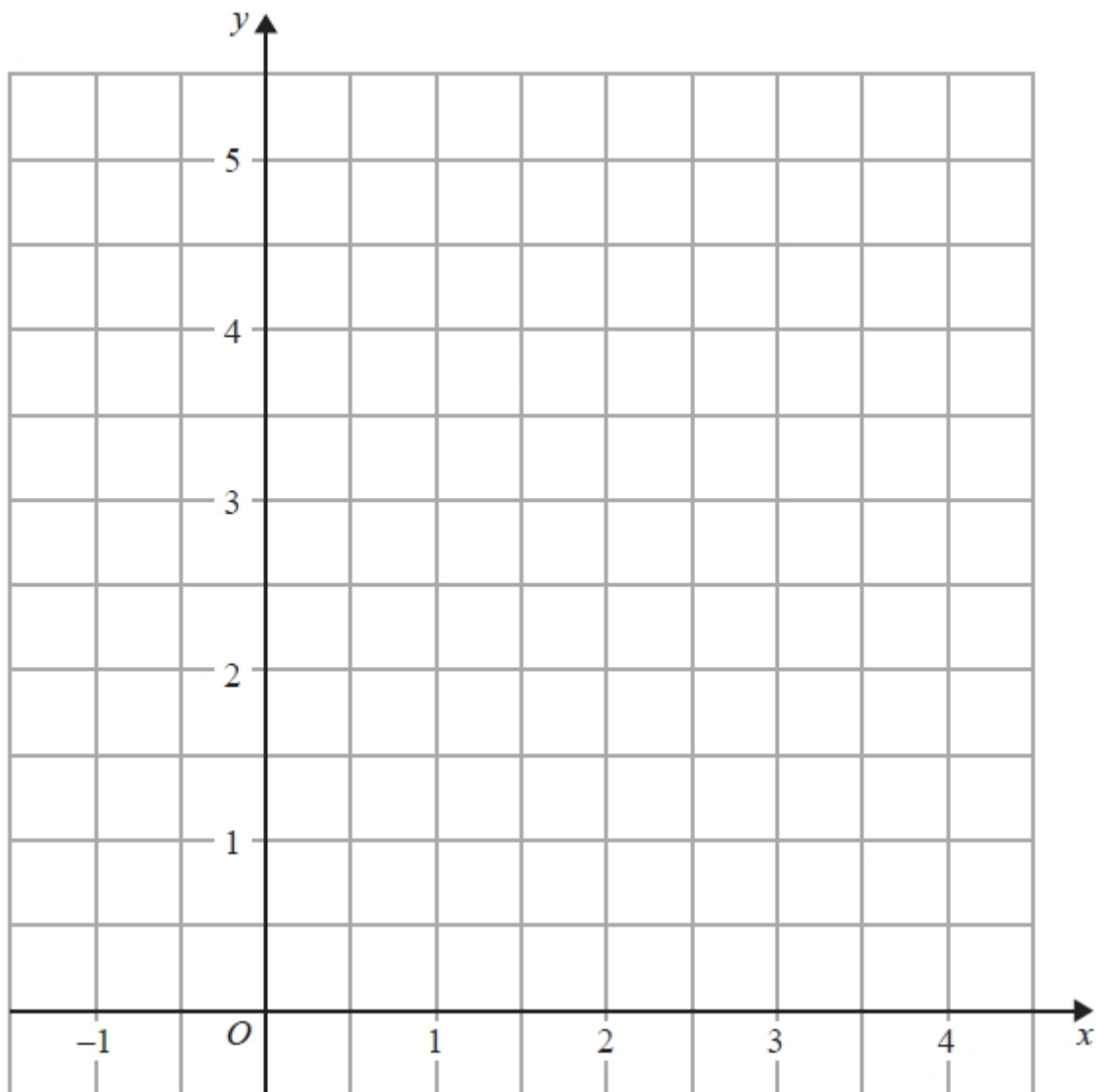
Q3.

(a) Complete the table of values for $x + y = 4$

x	-1	0	1	2	3	4
y			3			0

(2)

(b) On the grid, draw the graph of $x + y = 4$ for values of x from -1 to 4



(2)

(Total for question = 4 marks)

Q4.

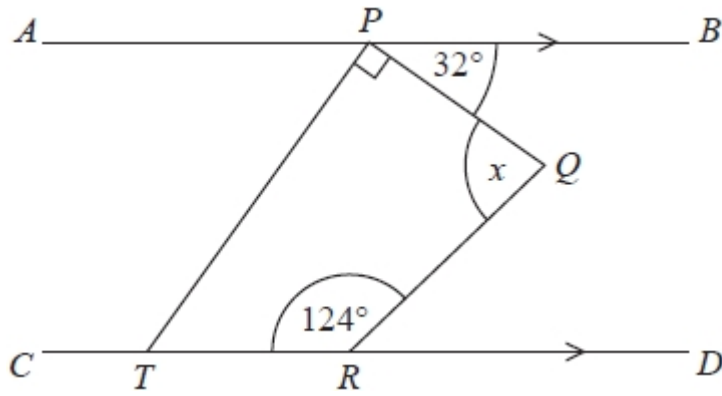


Diagram **NOT**
accurately drawn

APB is parallel to *CTRD*.
PQRT is a quadrilateral.

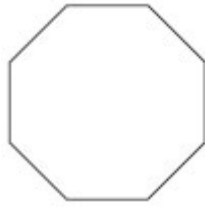
Work out the size of the angle marked *x*.
You must show your working.

.....°

(Total for question = 4 marks)

Q5.

Here is a polygon.



(a) Write down the mathematical name of this polygon.

.....

(1)

(b) In the space below, draw a pentagon.

(1)

Here is a heptagon.

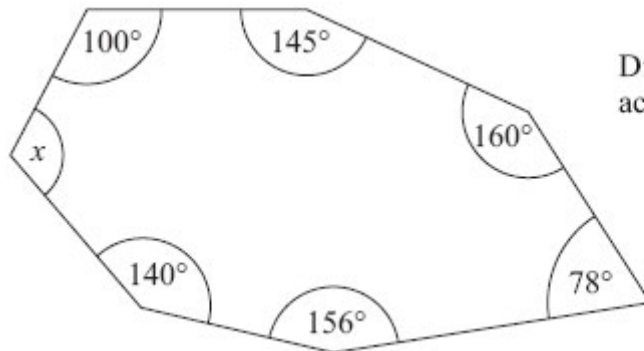


Diagram **NOT**
accurately drawn

All the angles of a heptagon add up to 900°

(c) Work out the size of the angle marked x .

.....

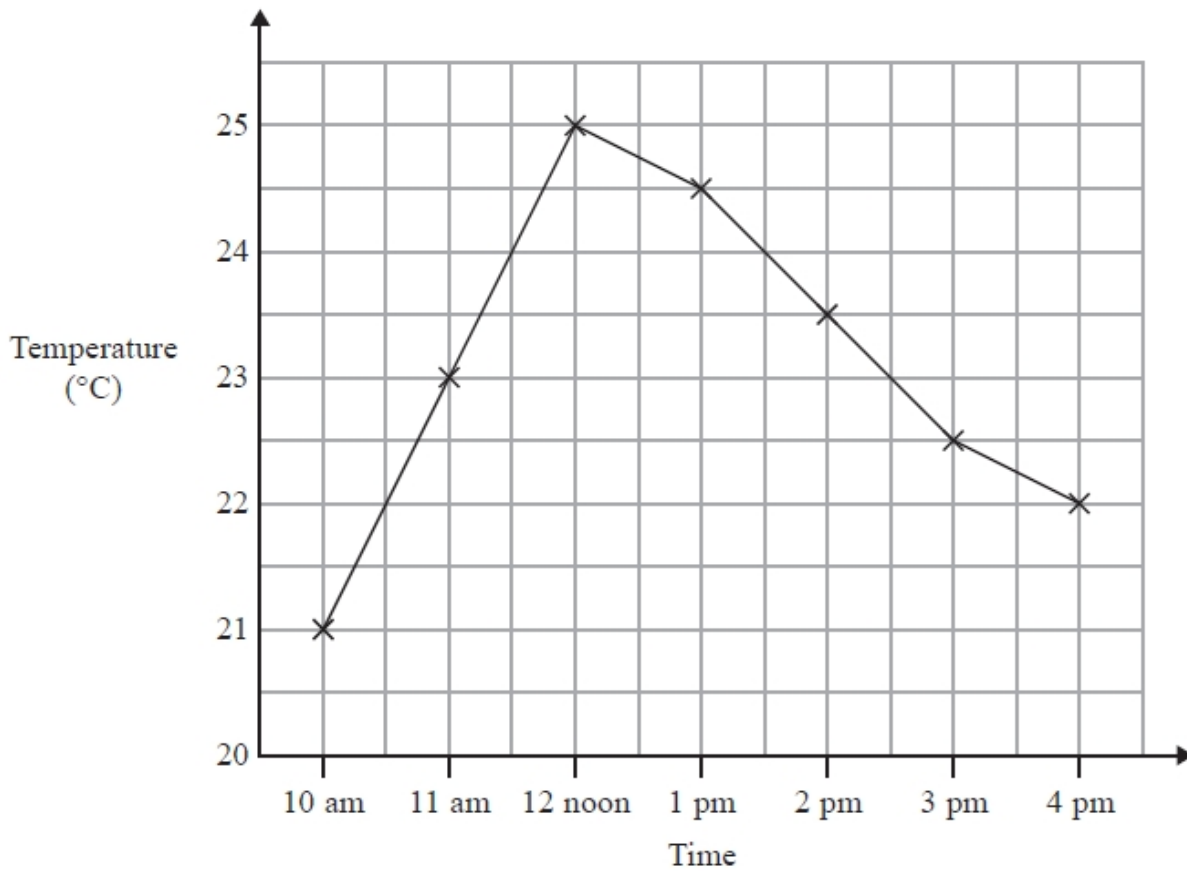
(3)

(Total for Question is 5 marks)

Q6.

Beth recorded the temperature, in degrees ($^{\circ}\text{C}$), inside her greenhouse every hour on one day.

The graph shows information about her results.



(a) Write down the temperature at 11 am.

..... $^{\circ}\text{C}$
(1)

(b) Write down the highest recorded temperature.

..... $^{\circ}\text{C}$
(1)

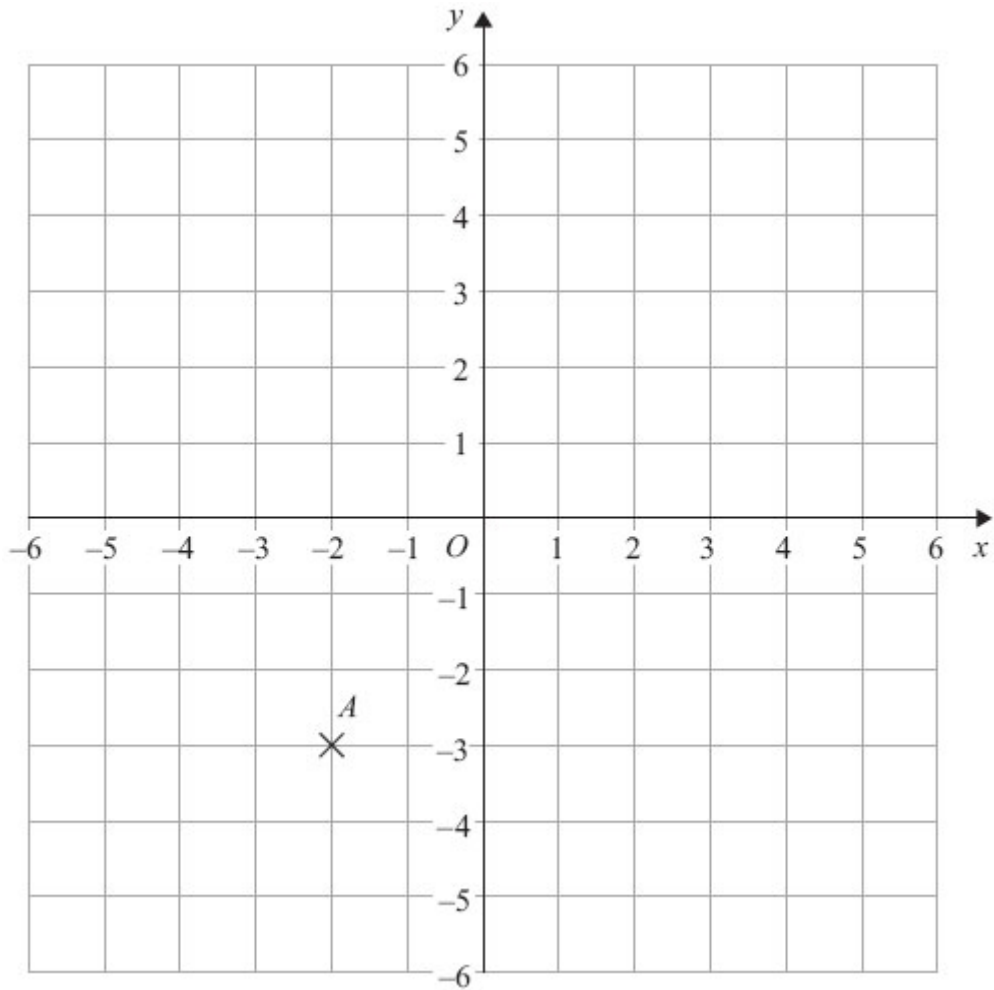
(c) Describe the change in temperature from 12 noon to 4 pm.

.....
.....

(1)

(Total for Question is 3 marks)

Q7.



(a)(i) Write down the coordinates of the point *A*.

(.....,.....)

(ii) On the grid, mark with a cross (X) the point with coordinates (5, 2).
Label this point *B*.

(2)

(b) On the grid, draw the line with equation $y = 3$

(1)

(Total for Question is 3 marks)

Q8.

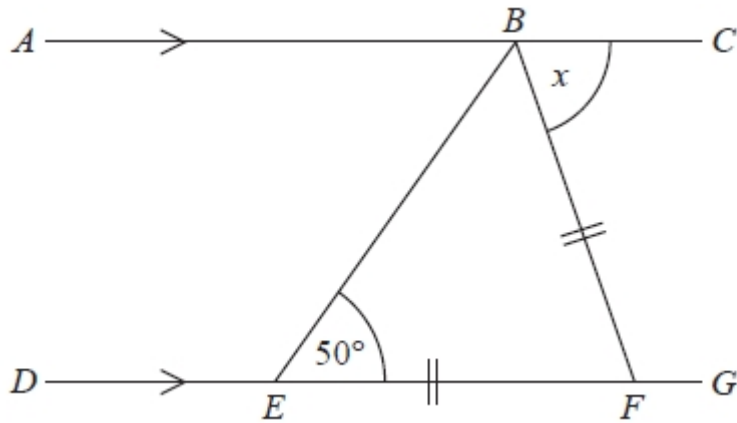


Diagram NOT
accurately drawn

ABC is a straight line.
 $DEFG$ is a straight line.
 AC is parallel to DG .
 $EF = BF$.
Angle $BEF = 50^\circ$.

Work out the size of the angle marked x .
Give reasons for your answer.

.....°

(Total for Question is 4 marks)

Q9.

ABC is a right-angled triangle.

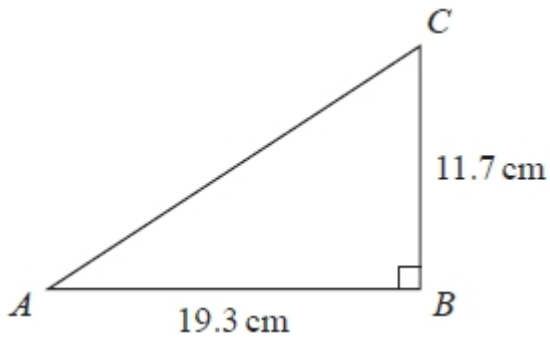


Diagram **NOT**
accurately drawn

Calculate the length of AC .
Give your answer correct to 3 significant figures.

..... cm

(Total for question = 3 marks)

Q10.

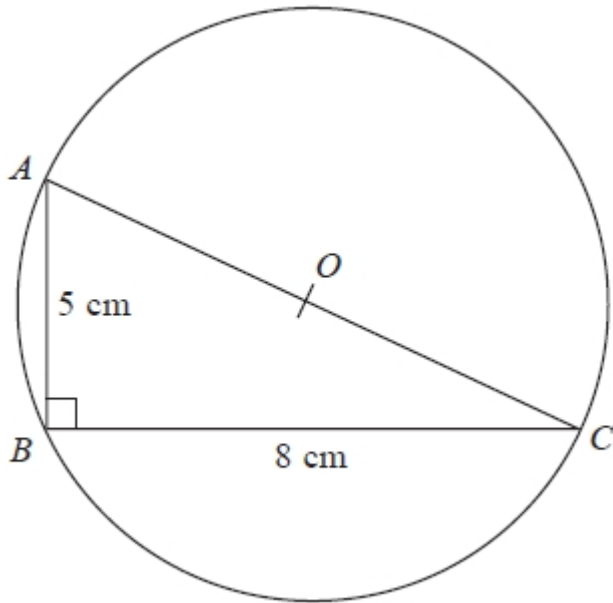


Diagram **NOT**
accurately drawn

ABC is a right-angled triangle.
 A , B and C are points on the circumference of a circle centre O .
 $AB = 5$ cm
 $BC = 8$ cm

AOC is a diameter of the circle.

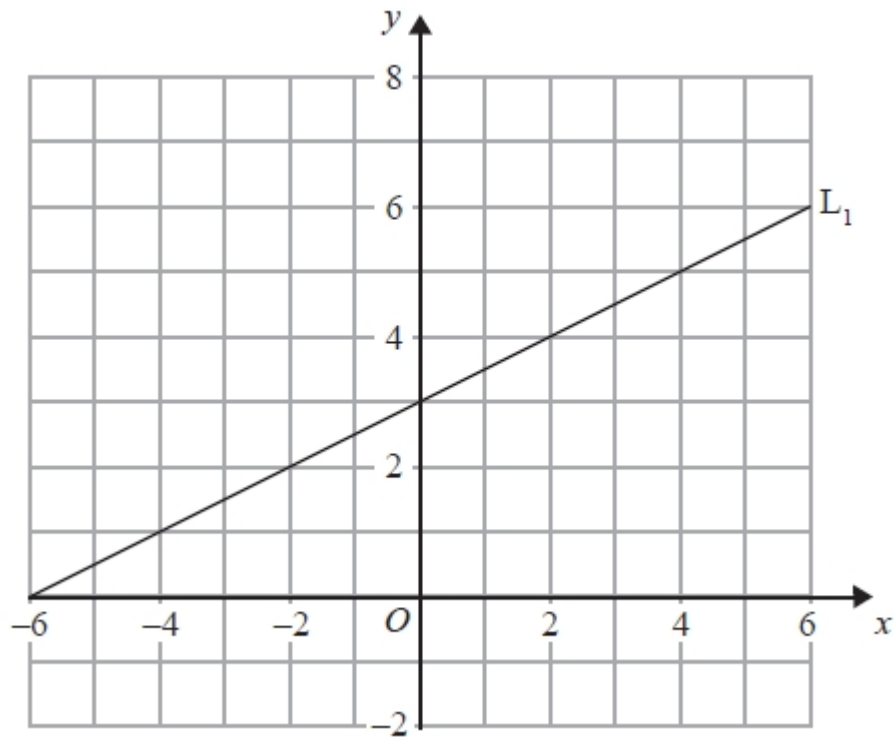
Calculate the circumference of the circle.
Give your answer correct to 3 significant figures.

..... cm

(Total for question = 4 marks)

Q11.

The diagram shows a straight line, L_1 , drawn on a grid.



A straight line, L_2 , is parallel to the straight line L_1 and passes through the point $(0, -5)$.

Find an equation of the straight line L_2 .

.....

(Total for Question is 3 marks)

Q12.

The straight line **L** has equation $y = 2x - 5$

Find an equation of the straight line perpendicular to **L** which passes through $(-2, 3)$.

.....

(Total for Question is 3 marks)

Q13.

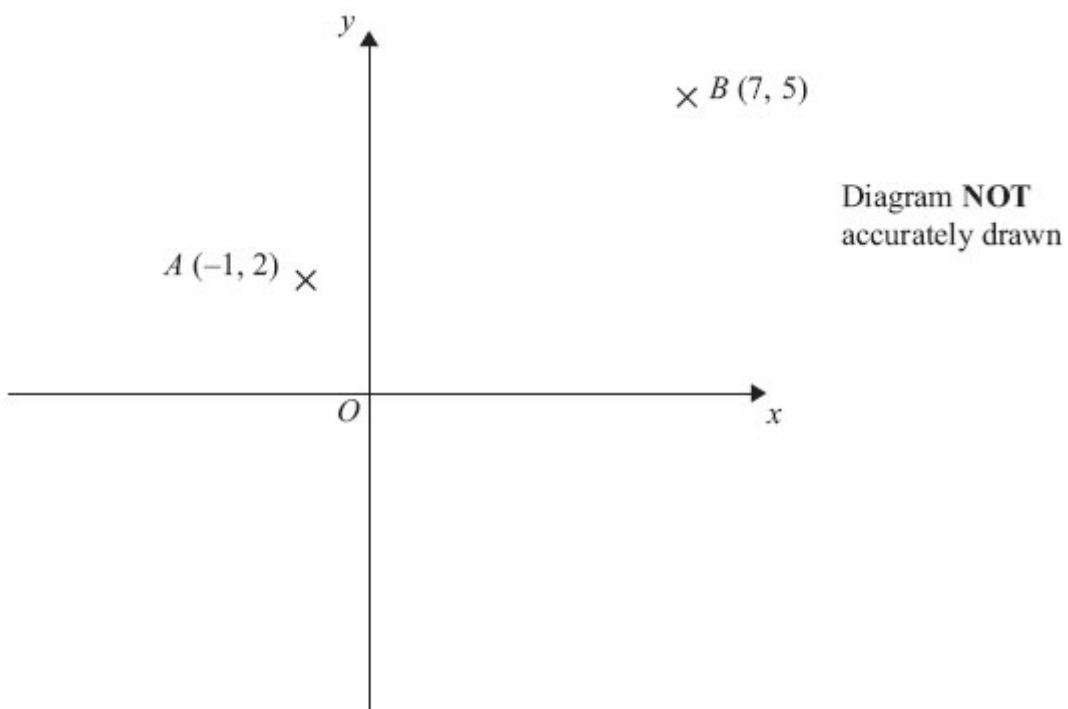
The points $A(6, 1)$ and $B(-2, 5)$ are on the line with equation $y = -\frac{1}{2}x + 4$

M is the midpoint of AB .

Find an equation of the line through M that is perpendicular to $y = -\frac{1}{2}x + 4$

.....
(Total for question = 4 marks)

Q14.



A is the point $(-1, 2)$
 B is the point $(7, 5)$

(a) Find the coordinates of the midpoint of AB .

.....
(2)

P is the point $(-4, 4)$
 Q is the point $(1, -5)$

(b) Find the gradient of PQ .

(2)

(Total for Question is 4 marks)

Q15.

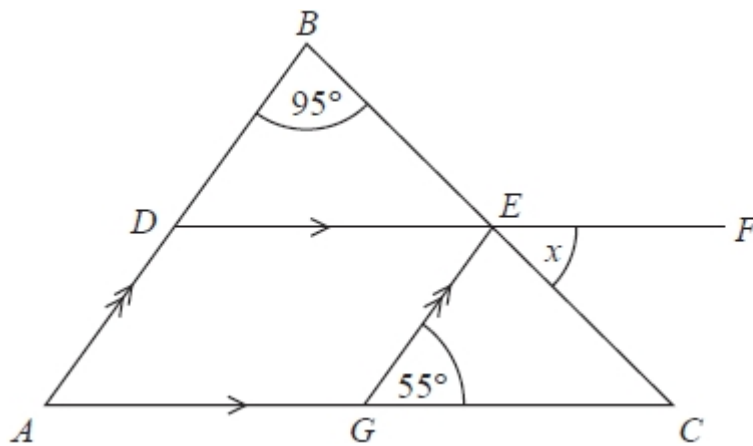


Diagram **NOT**
accurately drawn

* AGC and DEF are parallel lines.
 ADB and GE are parallel lines.
 BEC is a straight line.

Angle $DBE = 95^\circ$
Angle $CGE = 55^\circ$

Work out the size of the angle marked x .
Give reasons for each stage of your working.

(Total for question = 4 marks)

Q16.

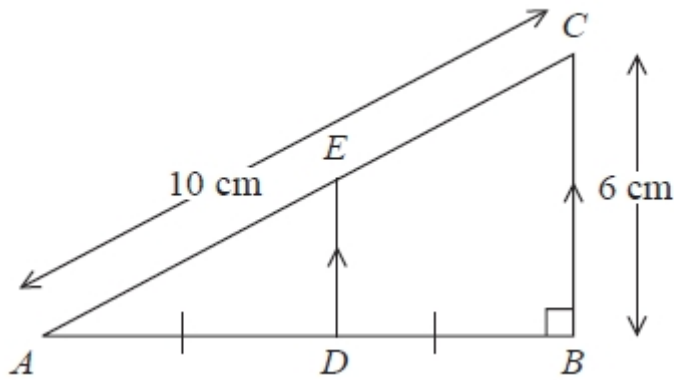


Diagram **NOT** accurately drawn

ADB and *AEC* are straight lines.
DE is parallel to *BC*.

Angle $ABC = 90^\circ$
 $AC = 10$ cm.
 $BC = 6$ cm.

D is the midpoint of *AB*.

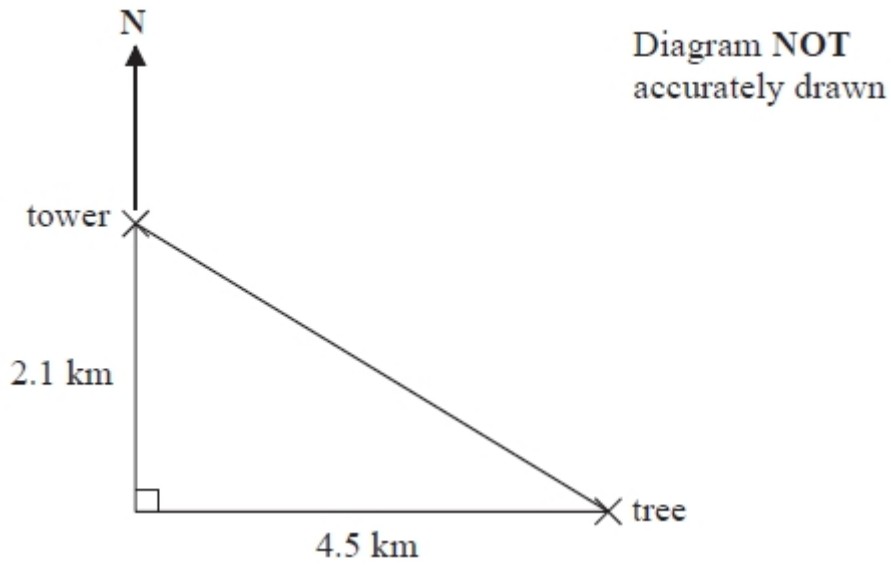
Work out the area of trapezium *BCED*.

..... cm²

(Total for question = 4 marks)

Q17.

The diagram shows the positions of a tower and a tree.



The tree is 2.1 km South of the tower and 4.5 km East of the tower.

- (a) Work out the distance between the tower and the tree.
Give your answer correct to one decimal place.

..... km
(3)

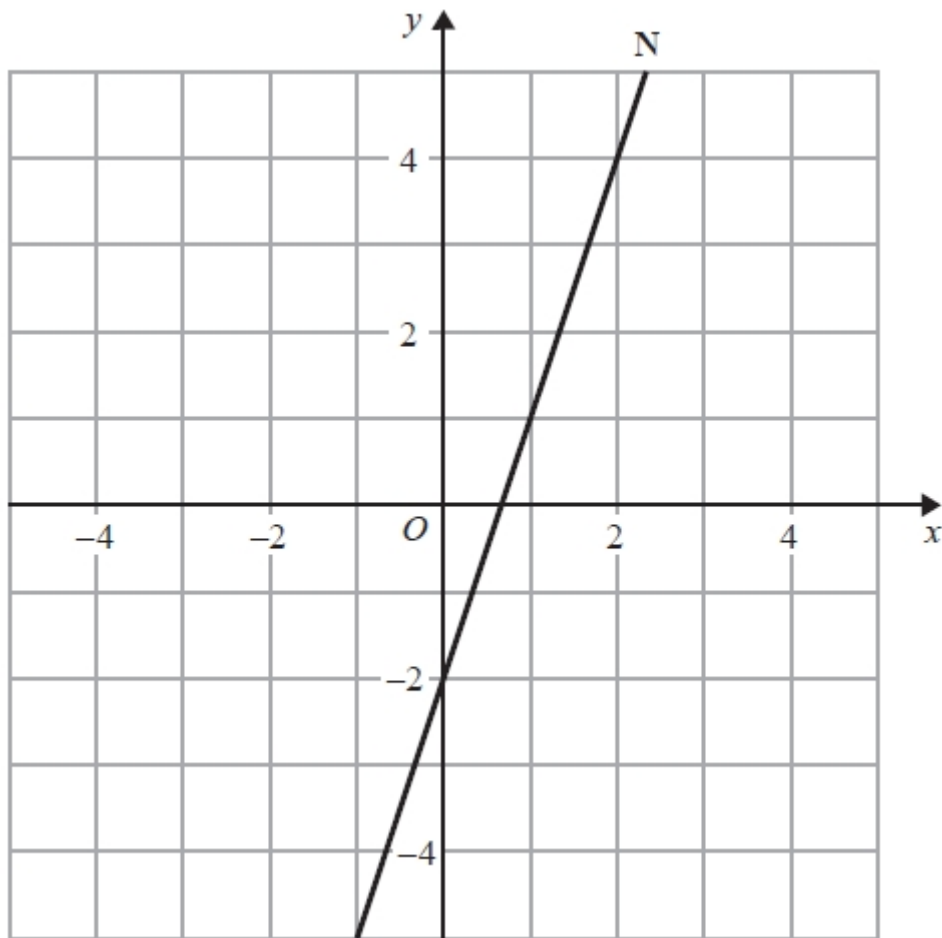
- (b) Work out the bearing of the tree from the tower.
Give your answer correct to the nearest degree.

.....°
(4)

(Total for Question is 7 marks)

Q18.

The line **N** is drawn below.



Find an equation of the line perpendicular to line **N** that passes through the point $(0, 1)$.

.....

(Total for question = 3 marks)