12. Going home from school, Jerry takes a bus journey of 7.2 km. The bus travels at an average speed of 36 km/h.

(a) Calculate the time taken for the bus journey. [2]

He then walks the remaining 1.2 km to his home in 20 minutes.

(b) Calculate his average walking speed in km/h. [3]

(c) Calculate Jerry's average speed for the entire journey from school to his home. [3]

Total Distance Traveled =

Total Time Taken =

Average Speed =

12. For the formula $s = \sqrt{\frac{w - 10e}{m}}$

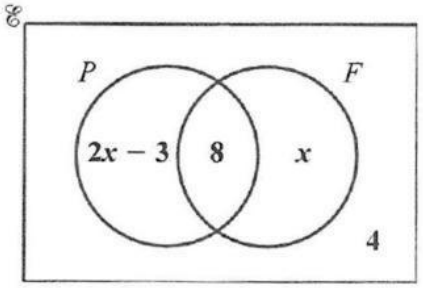
(a) determine the value of s when $w = 450$, $e = 13$ and $m = 5$, [3]

(b) make e the subject of the formula. [4]

$e =$ ——

12. A class of 30 students were asked if they studied Physics or French. The Venn diagram below shows their responses.

$\mathscr{E}$ = {students in the class}
F = {students who study French}
P = {students who study Physics}



(a) How many students study neither Physics nor French? [1]

(b) Calculate the value of x. [3]

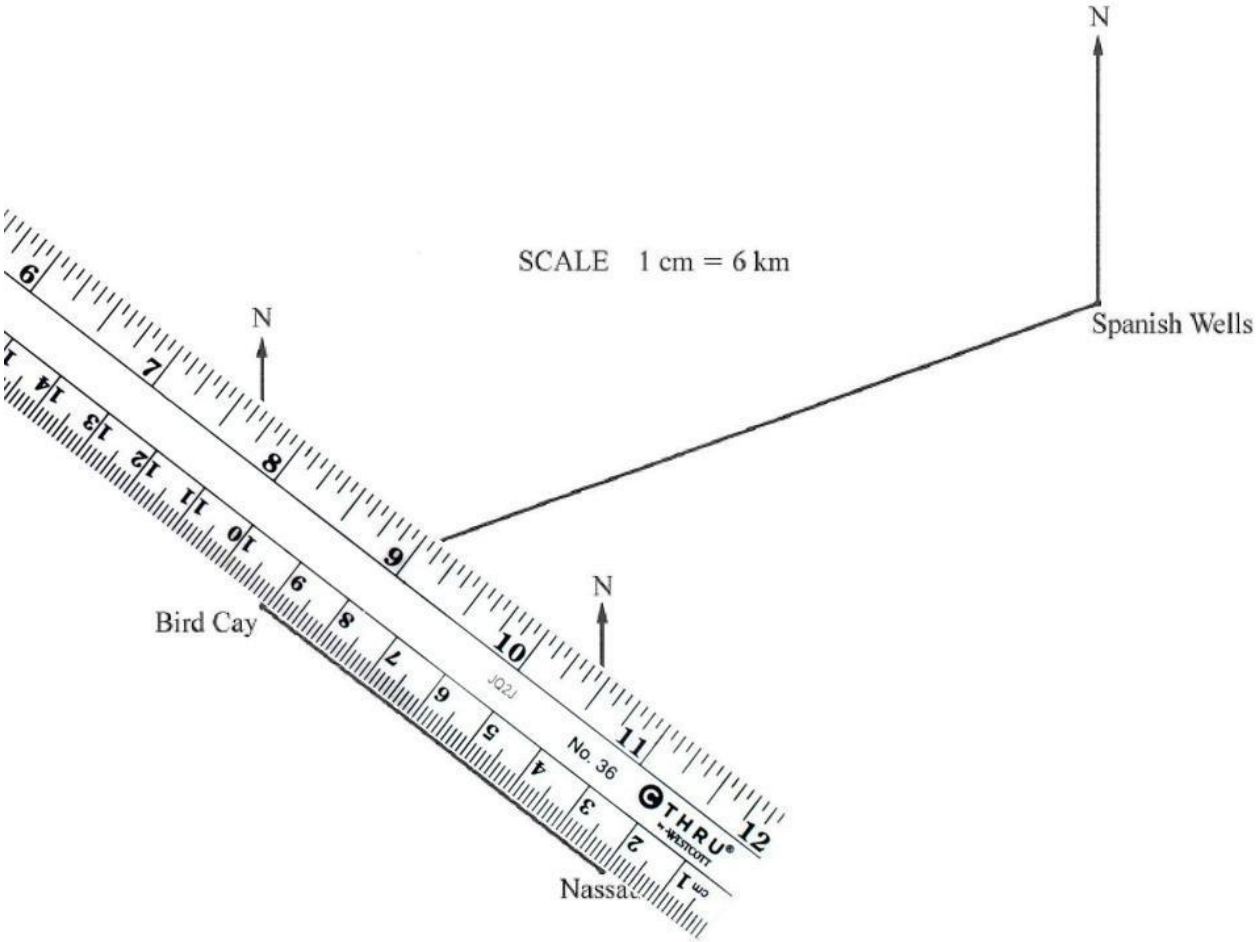
Equation for Components of the Venn Diagram

x =

(c) Use your value of x to calculate the number of students who study Physics only. [1]

LIVEWORKSHEETS

12. The scale drawing below shows the relative distances and directions of Bird Cay, Nassau, and Spanish Wells to each other.



(a) Given a scale of 1 cm = 6 km, measure and state

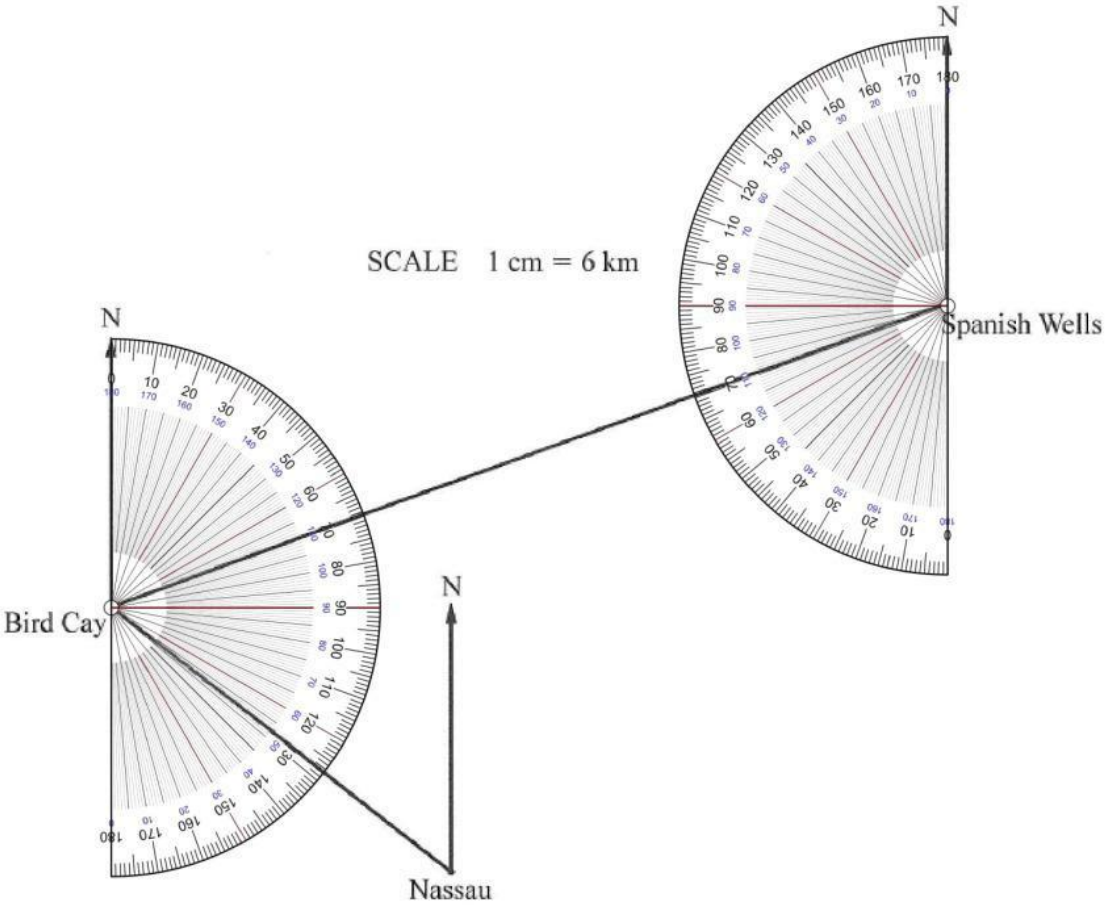
(i) the distance, in km, between Bird Cay and Nassau, [2]

Measure Distance (cm) =

Actual Distance (km) =

LIVEWORKSHEETS

12. The scale drawing below shows the relative distances and directions of Bird Cay, Nassau, and Spanish Wells to each other.



(a) Given a scale of 1 cm = 6 km, measure and state

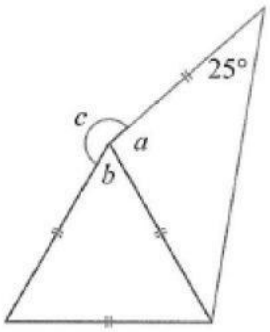
(ii) the bearing of Nassau from Bird Cay, [1]

(iii) the bearing of Bird Cay from Spanish Wells. [2]

(b) Andros Town is 45 km from Nassau. If this information were included in the above diagram, calculate the distance on the drawing in cm. [1]

LIVEWORKSHEETS

12. (a)



NOT TO SCALE

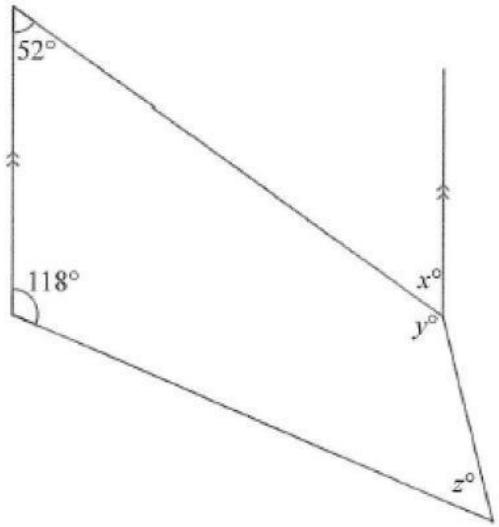
Find the size of the following angles.

(i) a [1]

(ii) b [1]

(iii) c [1]

(b)



NOT TO SCALE

In the above diagram, $y = 2x$.

Find the size of the following angles.

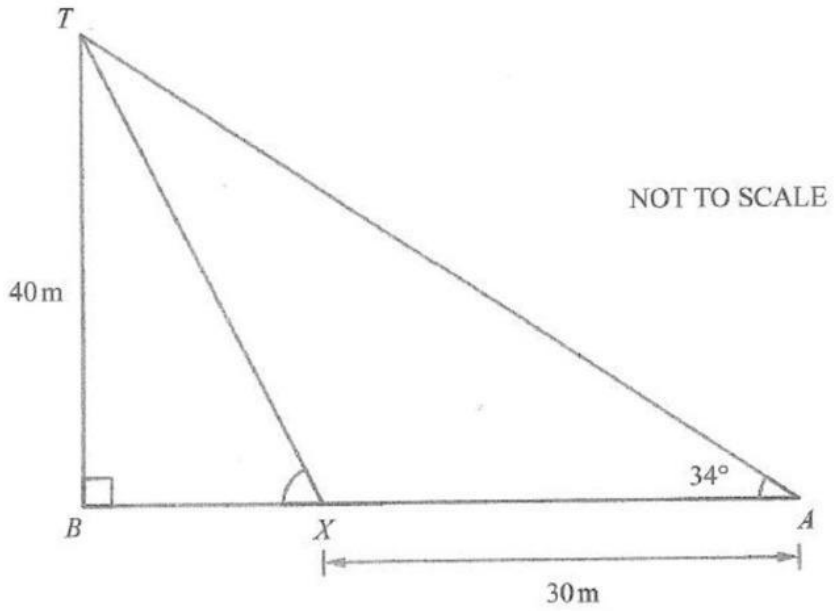
(i) x [1]

(ii) y [1]

(iii) z [1]

LIVEWORKSHEETS

12.



A 40 m tower stands at point B and a surveying team is standing at point A.

They measure the angle to the top (T) of the tower as 34°, as shown in the diagram.

In this question, give your answers to the nearest whole number.

(a) Find the distance BA. [3]

Trig Ratio Needed =

Distance of BA =

The survey team then moves forward 30 m to point X.

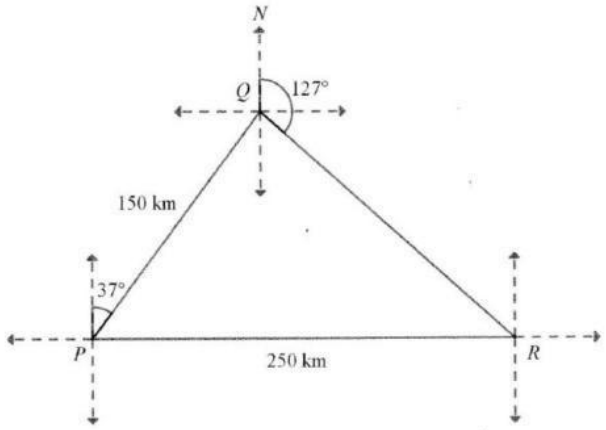
(b) Calculate length BX. [1]

(c) Calculate length TX. [3]

(d) Find the size of $B\hat{X}T$. [3]

LIVEWORKSHEETS

12.



NOT TO SCALE

Q is 150 km from P on a bearing of 037° .

R is 250 km due East of P.

R is on a bearing of 127° from Q.

(a) Show that the interior angle $P\hat{Q}R$ is 90° . [2]

Angle Adjacent to 127 =

Angle Alternate to 37 =

(b) State the bearing of P from Q. [1]

(c) Calculate the distance QR. [3]

(d) State the bearing of Q from R. [2]

LIVEWORKSHEETS