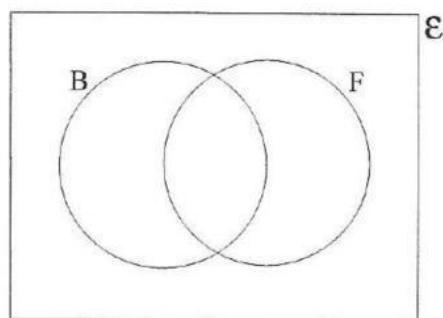


9. For the formula $A = P(1 + rt)$, calculate the value of
- (a) (i) A , when $P = 1200$, $r = 0.075$ and $t = 3$, [2]
- (ii) P , when $A = 2100$, $r = 0.08$ and $t = 5$. [2]
- (b) Make t the subject of the formula. [3]

$$t = \text{---}$$

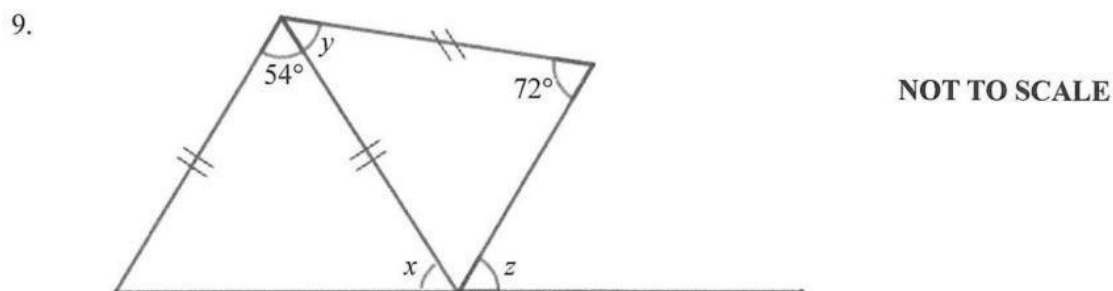
9. In a survey of 80 athletes, 45 said that they play basketball (B), 40 play football (F) and 27 play neither game.

- (a) Copy and complete the Venn diagram below using the above information.



[4]

- (b) Using your Venn diagram, write down the number of students
- (i) that play both sports, [1]
- (ii) that play only one of these sports, [1]
- (iii) that do not play basketball. [1]



Using the diagram, calculate the size of angle

- (a) x [1]
- (b) y [1]
- (c) z [1]

9. The formula $d = \frac{(v+u)t}{2}$, is particularly useful in the study of Physics.

Transpose the formula to make v the subject.

[3]

$$v = \text{---}$$

9. A floor is covered with 16-inch square tiles.

There are $17\frac{1}{2}$ tiles along the width and 19 tiles along the length.

- (a) Using 1 inch = 2.54 centimetres, find in centimetres the

(i) width of the floor,

[2]

(ii) length of the floor.

[2]

- (b) Find the area of the floor in square metres.

[2]

Width in meters =

Length in meters =

Area in square meters =

9. $C = \frac{5F - 160}{9}$ is used to convert degrees of temperature from Fahrenheit (F) to Celsius (C).

- (a) Convert:

(i) $50^\circ F$ to $^\circ C$,

[2]

(ii) $50^\circ C$ to $^\circ F$

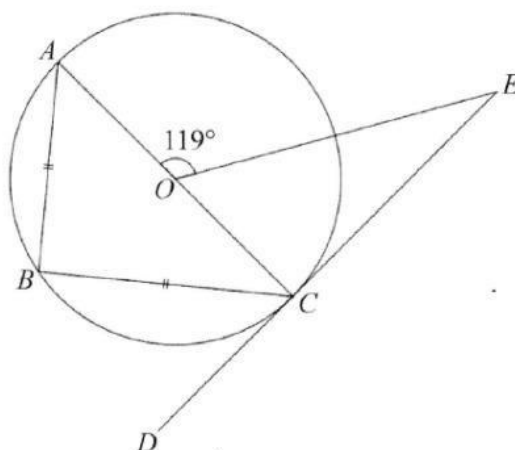
[4]

- (b) Make F the subject of the formula.

[3]

$$F = \text{---}$$

9.



NOT TO SCALE

In the diagram, O is the centre of the circle,
 DE is tangent to the circle at C and AC is a diameter.
Find the sizes of the following angles:

- (a) $\angle EOC$ [1]
- (b) $\angle OCE$ [1]
- (c) $\angle CEO$ [1]
- (d) $\angle ABC$ [1]
- (e) $\angle BCA$ [1]