

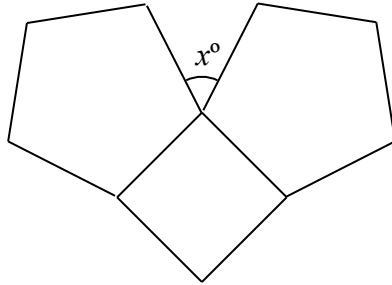


## POLYGONS

### MULTI-STEP PROBLEMS

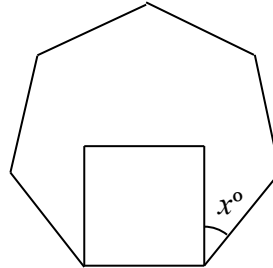
Ref: G424. **4C3**

**A1** The diagram shows two regular pentagons and a square.



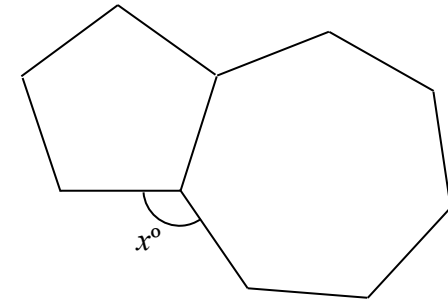
Work out the value of  $x$ .

**A2** The diagram shows a square inside a regular heptagon.



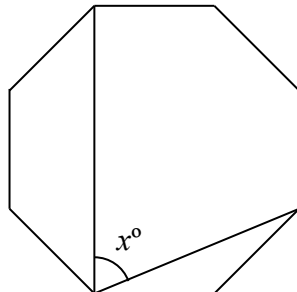
Work out the value of  $x$ .

**A3** The diagram shows a regular pentagon and a regular heptagon.



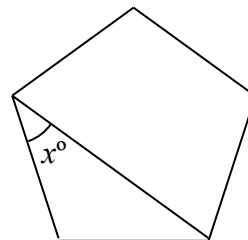
Work out the value of  $x$ .

**B1** The diagram shows a regular octagon.



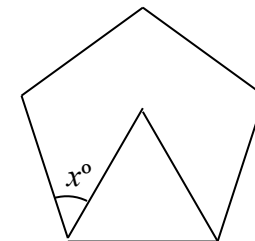
Find the value of  $x$ .  
Show clear working out.

**B2** The diagram shows a regular pentagon.



Find the value of  $x$ .  
Show clear working out.

**B3** The diagram shows an equilateral triangle inside a regular pentagon.



Work out the value of  $x$ .

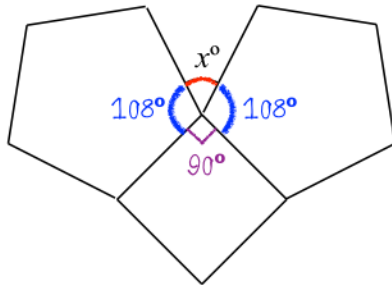


## POLYGONS

### MULTI-STEP PROBLEMS

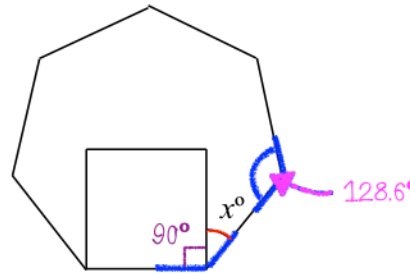
Ref: G424. **4C3**

**A1** The diagram shows two regular pentagons and a square.



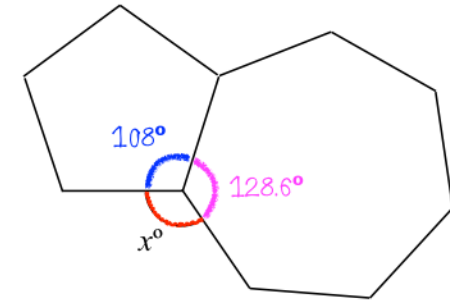
$$x = 360 - (108 + 90 + 108) = 54^\circ$$

**A2** The diagram shows a square inside a regular heptagon.



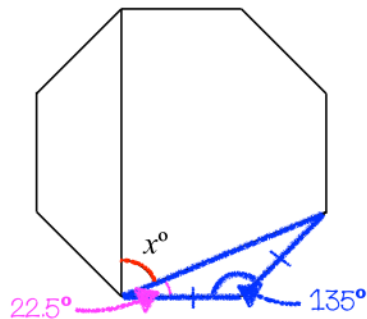
$$x = 128.6 - 90 = 38.6^\circ$$

**A3** The diagram shows a regular pentagon and a regular heptagon.



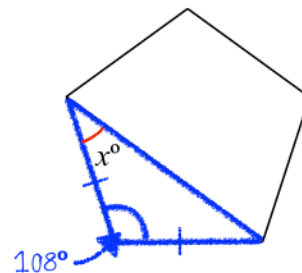
$$x = 360 - (108 + 128.6) = 123.4^\circ$$

**B1** The diagram shows a regular octagon.



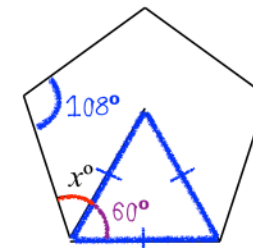
$$x = 90 - 22.5 = 67.5^\circ$$

**B2** The diagram shows a regular pentagon.



$$x = \frac{180 - 108}{2} = 36^\circ$$

**B3** The diagram shows an equilateral triangle inside a regular pentagon.



$$x = 108 - 60 = 48^\circ$$