**Questions**

**Q1.**



The diagram shows a regular octagon and a regular hexagon.

Find the size of the angle marked *x*
You must show all your working.

*x* =........................................................... º

**(Total for question = 3 marks)**

**Q2.**



*ABCDEFGH* is a regular octagon.
*ADJ* is a straight line.

angle *BAD* = angle *CDA*

Show that angle *CDJ* = 135°

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

**Q3.**

*ABCDE* is a pentagon.



Work out the area of *ABCDE*.

 ........................................................... cm2

**(Total for question = 5 marks)**

**Q4.**

Triangles *ABD* and *BCD* are right-angled triangles.



Work out the value of *x*.
Give your answer correct to 2 decimal places.

...........................................................

  **(Total for question = 4 marks)**

**Q5.**

*ABCD* is a trapezium.



Work out the size of angle *CDA*.
Give your answer correct to 1 decimal place.

 ........................................................... °

**(Total for question = 5 marks)**

 **Q6.**

*ABC* is a right-angled triangle.



(a)  Work out the size of angle *ABC*.

Give your answer correct to 1 decimal place.

 ........................................................... °

**(2)**

The length of the side *AB* is reduced by 1 cm.

The length of the side *BC* is still 7 cm.
Angle *ACB* is still 90°

(b)  Will the value of cos ABC increase or decrease?

You must give a reason for your answer.

 .............................................................................................................................................

 .............................................................................................................................................

**(1)**

 **(Total for question = 3 marks)**

**Q7.**

Write these numbers in order of size.
Start with the smallest number.

2.5 × 102            0.0025            2.5 × 10−2           2500

 .............................................................................................................................................

**(Total for question = 2 marks)**

**Q8.**

(a)  Write  2.673 × 104  as an ordinary number.

 ...........................................................

**(1)**

(b)  Write  0.0704  in standard form.

 ...........................................................

**(1)**

(c)  Calculate  (4.515 × 106) ÷ (3.01 × 10−2)
      Give your answer in standard form.

 ...........................................................

**(2)**

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