**End of Unit Test** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Pythagoras’ Theorem and Trigonometry - HIGHER**

****

Calculator allowed

1) (a) Work out the size of angle *x*.



 …………………………………………………………………………………………………..

 …………………………………………………………………………………………………..

 …………………………………………………………………………………………………..

 …………………………………………………………………………………………………..

Answer ......................................................................degrees

**(2)**

(b) Work out length *y*.



 …………………………………………………………………………………………………..

 …………………………………………………………………………………………………..

 …………………………………………………………………………………………………..

 …………………………………………………………………………………………………..

Answer ..............................................................................cm

**(2)**

**(Total 4 marks)**

2) In the triangle, angle *y* is obtuse.



Work out the size of angle *y*

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

Answer ............................................ degrees

**(Total 3 marks)**

3) Work out the size of angle *x*. Not drawn accurately



 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

Answer .................................................................... degrees

**(Total 3 marks)**

4) The diagram shows a sector of a circle, centre *O*, radius 18 cm. Not drawn accurately.



Work out the area of the shaded segment.

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

Answer ............................................................... cm2

**(Total 5 marks)**

5) The area of this triangle is 18cm²



Work out *y*.

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

 …………………………………………………………………………………………………………

*y* = ....................................................... cm

**(Total 5 marks)**

**(Total for test = 20 marks)**