Multiple-choice section – choose the correct answer

Question 1 [11.1]

Which of the following are irrational numbers?

, 4.5, , , 

A only B ,and  C , 4.5 and  D and

Question 2 [11.1]

The value of  is between:

A 4 and 5 B 8 and 9 C 10 and 7 D 16.9 and 17.1

Question 3 [11.2]

 can be simplified to:

**A** 14 **B** 2 **C** 2 **D**  4

Question 4 [11.3]

7 – 3simplifies to:

A 4 B 4 C 8 D 5

Multiple-choice results: \_\_\_ / 4

Short answer section

Question 5 2 marks [11.1]

Choose from the following words to complete the sentences below.

base coefficient index irrational number power surd

 is an example of a \_\_\_\_\_\_\_\_\_ or an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Question 6 3 marks [11.3]

Simplify: + 3

Question 7 4 marks [11.4]

Expand and simplify (3+ ).

Question 8 5 marks [11.2]

Complete the following.

**(a)**  **(b)** 

Question 9 6 marks [11.5]

Simplify:

(a)  (b) 

Short answer results: \_\_\_ / 20

Extended answer section

Question 10 6 marks [11.3]

Find the perimeter of each shape. Leave your answers as exact values (do not use a calculator to find decimal approximations).

**(a)** A circle with radius  mm.

**(b)** A triangle with sides of (+ 2) m, (5 + 3) m and (3 – ) m.

Extended answer results: \_\_\_ / 6

TOTAL test results: \_\_\_ / 30