**Y8 DECEMBER**

**ASSESSMENT**

**Section A**

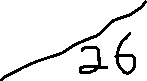
Non-Calculator

Time allowed: 24 mins

**Name:……………………… Form:……**

**Maths Teacher:……………………………..**

[](http://www.google.co.uk/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&docid=MZDWkTFt2kYNKM&tbnid=gkN1yQ7VOpzCwM:&ved=0CAUQjRw&url=http://en.wikipedia.org/wiki/Sale_Grammar_School&ei=wH1sU6DKE8aN0AW22IGgDQ&bvm=bv.66330100,d.ZWU&psig=AFQjCNGjfU2V25ULa46ANjQzFqyH0LrpjQ&ust=1399705403446655)



**1** Use index notation to write each of the following as the product of its prime factors.

**a** 120

…………………………

**b** 72

…………………………

(4 marks)

**2** Use your results from Question 1 to find

**a** the highest common factor of 120 and 72

…………………………

**b** the lowest common multiple of 120 and 72

…………………………

(4 marks)

**3** Write each of these as a single power.

**a** 73 × 77

…………………………

**b** 1815 ÷ 183

…………………………

(2 marks)

**4** Round each number to the given number of significant figures.

**a** 60 799 (2 s.f.)

…………………………

**b** 0.006 058 7 (3 s.f.)

…………………………

(2 marks)

**5** Estimate 30.92

…………………………

(2 marks)

**6** Fill in each empty box to make the statement true.

**a** 10 + 5(x + 3) ≡ 5(x +  )

**b** 10 − 3x + 4 ≡  + 3(4 − x)

(2 marks)

**7** Expand and simplify 6x(2x − 4) − 5(2 + x)

…………………………

(3 marks)

**8** Find the value of each expression when a = 4 and b = −5

**a** 2 + 3a2

…………………………

**b** 5 + (15 − 3b)2

…………………………

(3 marks)

**9** Solve the equation 20 − 3(2x − 7) = 5(x + 5) – 6

**(4 marks)**