 **Dubai Scholars Private School**

 **Year 8 –Worksheet – Factors & powers**

 **Subject: Mathematics**

 **Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class/Sec: \_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Work out the answers in the note book and stick the worksheet in the note book.**

**1** Write 600 as a product of its prime factors.

**2 a** Work out the prime factorisation of 128.

**b** Using your answers to question **1** and question **2a**, work out

**i** the HCF of 600 and 128

**ii** the LCM of 600 and 128

**3** Using the laws of indices evaluate the following.

**a**

(33 × 7)

 32



**b**

**c** (−4)3

**4** Work out **(Hint: Use BIDMAS**)

**a** 42 + 102 ÷ 22

**b** (42 + 102) ÷ 22

**5** Simplify these calculations, writing each answer as a power of 2

**6** Round these numbers to the degree stated in brackets.

**a** 427.5 (to 3 significant figures)

**b** 5.86 (to 2 significant figures)

**c** 1 568 341 (to 4 significant figures)

**7** Estimate the answer to this calculation. **(Hint: Round each number to 1 significant figure first)**