## Exponent power: Powers of 2

Complete this table of powers of two in both directions. Use a calculator if you need to.

2-7	<b>2</b> -6	<b>2</b> -5	2-4	<b>2</b> -3	<b>2</b> <sup>-2</sup>	2 <sup>-1</sup>	<b>2</b> <sup>0</sup>	2 <sup>1</sup>	<b>2</b> <sup>2</sup>	<b>2</b> <sup>3</sup>	24	<b>2</b> <sup>5</sup>	<b>2</b> <sup>6</sup>	<b>2</b> <sup>7</sup>	<b>2</b> <sup>8</sup>	<b>2</b> <sup>9</sup>	210	211
									4	8	16	32	64	128				

- 1. The ones digit of  $2^6$  is 4. The ones digit of  $2^7$  is 8. What is the ones digit of...?
  - a.  $2^{12}$
  - b. 2<sup>20</sup>
  - c. 2<sup>99</sup>
  - d. 2<sup>1001</sup>
- 2. Use your calculator to solve these problems:

a. 
$$16 \times 16 =$$

b. 
$$2 \times 64 =$$

c. 
$$4 \times 128 =$$

- 3. What is true about all the answers in Question 2 Why does this happen?
- 4. Use your calculator to solve these problems:

5. What is true about all the answers in Question 4. Why does this happen?