6/5 Maths w/c 27th April 2020

2. Calculating Scale Factors - Answers

Now you try with the next example.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 |  |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 |  |  |  |  |  |
|  | A | | 1 |  |  |  | B | | | | | | 1 |  |  |  |  |
|  |  |  |  |  |  |  | 2 |  |  |  |  |
|  |  |  |  |  |  |  | 3 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Follow the steps:

a) count the squares the measure the length and width of both rectangles.

b) Put your measurements in the table below.

c) Work out the scale factor number. Use times tables or divide to help.

|  |  |  |  |
| --- | --- | --- | --- |
|  | A | scale factor | B |
| Length | 2 | x 3 | 6 |
| Width | 1 | x 3 | 3 |

Now complete these sentences:

Shape B is \_\_3\_\_\_ times bigger than Shape A.

Shape A has been enlarged by a scale factor of \_\_\_3\_\_ to make Shape B.

Practice some more on these three examples.

1.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | C | | | | | 1 |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 |  |  |  |  |  |  |  |  |  |  |  |
|  | 3 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |  |  |  |  |  |
|  |  | D | | | | | | | | | | 1 |  |  |  |  |  |
|  |  | 2 |  |  |  |  |  |
|  |  | 3 |  |  |  |  |  |
|  |  | 4 |  |  |  |  |  |
|  |  | 5 |  |  |  |  |  |
|  |  | 6 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | C | scale factor | D |
| length | 5 | x 2 | 10 |
| width | 3 | x 2 | 6 |

Shape D is \_\_2\_\_\_ times bigger than Shape C.

Shape C has been enlarged by a scale factor of \_\_2\_\_\_ to make Shape D.

2.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |  |
|  | E | | 1 |  | F | | | | | | | | 1 |  |  |  |  |
|  |  |  |  |  | 2 |  |  |  |  |
|  |  |  |  |  | 3 |  |  |  |  |
|  |  |  |  |  | 4 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | E | scale factor | F |
| length | 2 | x 4 | 8 |
| width | 1 | x 4 | 4 |

Shape F is \_\_4\_\_\_ times bigger than Shape E.

Shape E has been enlarged by a scale factor of \_\_4\_\_\_ to make Shape F.

3.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | G | | | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |  |  |
|  | H | | | | | | | | | | | | | | | 1 |  |
|  | 2 |  |
|  | 3 |  |
|  | 4 |  |
|  | 5 |  |
|  | 6 |  |
|  | 7 |  |
|  | 8 |  |
|  | 9 |  |
|  | 10 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | G | scale factor | H |
| length | 3 | x 5 | 15 |
| width | 2 | x 5 | 10 |

Shape H is \_\_5\_\_\_ times bigger than Shape G.

Shape G has been enlarged by a scale factor of \_\_5\_\_\_ to make Shape H.