6/5 Maths w/c 27th April 2020

1. Using Scale factors

Now you try.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |
|   |  |  |  |  | 1 |  |  | 1 |  |  |
|  |  |  |  |  |  |  | 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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1) First, count the squares on the length and the width.

 Length - \_\_4\_\_\_\_ Width - \_\_\_1\_\_\_\_

2) We are going to enlarge our shape to make it two times as big. Now multiply the length and width by 2 to find the new length and width.

 New length - \_\_8\_\_\_\_ New width - \_\_\_2\_\_\_\_

3) Now, draw the enlarged shape next to the original one on the squares above.

On both of our examples, we have made our new shapes two times as big as our original shapes. We can make new shapes that are even bigger. If I want to make a shape that is two times as big, I multiply the measurements by ‘2’. What do you think I would need to multiply by if I wanted to make a shape that was three times as big? \_\_\_3\_\_

What would I multiply by to make a shape:

a) four times as big? \_\_\_4\_\_\_

b) five times as big? \_\_\_\_5\_\_

c) ten times as big? \_\_\_\_\_10\_\_

Look at the shapes on the next page. Draw new shapes next to them. How much bigger they need to be is written on the original shape.

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|  | 1 | 2 | 3 | 4 |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |
|   | two times as big | 1 |  |  |  | 1 |  |
|  | 2 |  |  | 2 |  |
|  |  |  |  |  |  |  |  | 3 |  |
|  | 1 | 2 |  |  |  |  |  | 4 |  |
|  | 3 times as big | 1 |  |  | 1 | 2 | 3 | 4 | 5 | 6 |  |  |  |  |  |  |
|  | 2 |  |  |  | 1 |  |  |  |  |  |
|  | 3 |  |  | 2 |  |  |  |  |  |
|  |  |  |  |  |  | 3 |  |  |  |  |  |
|  |  |  |  |  |  | 4 |  |  |  |  |  |
|  |  |  |  |  |  | 5 |  |  |  |  |  |
|  |  |  |  |  |  | 6 |  |  |  |  |  |
|  |  |  |  |  |  | 7 |  |  |  |  |  |
|  |  |  |  |  |  | 8 |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 |  | 9 |  |  |  |  |  |
|  | 4 times as big | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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|  | 1 | 2 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  1 | 5 times as big |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |  |  |
| 1 |  |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |
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| 8 |  |  |
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| 10 |  |  |
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