 **Reasoning and Problem Solving – Multiply by 6**

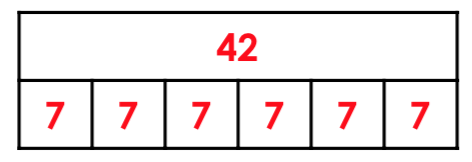
.

|  |  |
| --- | --- |
| 1.Ruby rolls a dice 3 times and it lands on 6 every time. | 2. Ben rolls a dice 7 times and it lands on 6 every time.  Macintosh HD:private:var:folders:5k:54k53_tn2wl58mfv0m4nnflm0000gn:T:TemporaryItems:Screenshot 2020-06-24 at 15.43.46.png |
| 3. Use the cards below to create as many calculations as you can. | 4. Use the cards below to create as many calculations as you can.  Macintosh HD:private:var:folders:5k:54k53_tn2wl58mfv0m4nnflm0000gn:T:TemporaryItems:Screenshot 2020-06-24 at 15.46.15.png |
| 5. Max is trying to solve the calculation below. | 6. Katie is trying to solve the calculation below. |

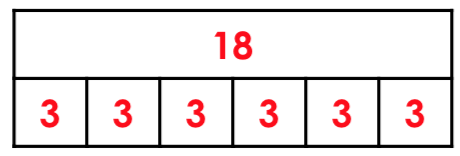
|  |
| --- |
| 7. David says, “I am not confident with my 6 times tables but I know my 3s so I can use this to help.” Is David correct? |
| 8. If I know my 6 times tables, I could use this to work out 60 x 70. Is this correct? What is the answer? |

**Answers**

1. Ruby is not correct because 3 x 6 = 18, not 24
2. Ben is not correct because 7 x 6 = 42. He has miscounted.
3. Various answers, for example: 24 ÷ 6 = 4, 2 x 6 = 12
4. Various answers, for example: 36 ÷ 6 = 6, 3 x 6 = 18
5. Max has got the wrong answer because 42 ÷ 6 = 7. He has drawn his bar model incorrectly.



1. Katie has got the wrong answer because 18 ÷ 6 = 3. She has drawn his bar model incorrectly.



1. David is correct because he can double the answer to the 3 times table to find the answer to the 6 times table.

3 x 4 = 12

6 x 4 = 24

8. Yes, because I have just changed the place value of the digit. I can take of the zeros, do the calculation and add the zeros back onto the answer.