

Lesson 8: Multiplying more than two numbers (2)

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- $5 \times 5 \times 3$; $5 \times 5 = 25$; $25 \times 3 = 75$ (numbers may be multiplied in a different order)
There are 75 beads in total.
- $2 \times 7 \times 7 = 98$ There are 98 counters in total.
First I found $7 \times 7 = 49$. Then I doubled 49 to get 98.
- a) Explanations may vary, but should reference that there are 16 frames with 9 counters in each frame, organised into 2 rows of 8 frames with 9 counters in each frame. So, the total number of counters can be worked out using the calculation 16×9 or the calculation $2 \times 8 \times 9$. Therefore $16 \times 9 = 2 \times 8 \times 9$.
b) There are 144 counters in total.
- Explanations may vary, but should reference the following:
Andy is correct because the factors of 15 are 3 and 5, i.e. $15 = 5 \times 3$ and so $15 \times 8 = 5 \times 3 \times 8$.
Reena is correct because multiplication is commutative and so the order of the numbers does not matter, i.e. $5 \times 3 \times 8 = 5 \times 8 \times 3 = 40 \times 3$.
- 35 is equal to 5×7
16 is equal to 2×8
So, I can work out 35×16 by $5 \times 7 \times 2 \times 8 = 5 \times 2 \times 7 \times 8 = 10 \times 56 = 560$
- a) 3,600
b) $6 \times 2 \times 3 \times 5 \times 4 \times 5 = 12 \times 15 \times 20$ because
 $6 \times 2 = 12$, $3 \times 5 = 15$, $4 \times 5 = 20$

Reflect

Explanations may vary; for example:
Multiplication is commutative which means that the order in which you multiply the numbers does not matter, since $3 \times 4 = 4 \times 3$, then $3 \times 4 \times 6 = 4 \times 3 \times 6$.