

# Verbal Reasoning

## Related Numbers

### Practice Questions

Find the number that completes the last set of numbers in the same way as the first two sets. Write your answer on the line, inside the final set of brackets.

1. 7 (6) 5      18 (19) 20      8 (      ) 10
2. 2 (15) 7      9 (37) 4      5 (      ) 6
3. 8 (5) 1      3 (12) 5      9 (      ) 9
4. 6 (40) 4      7 (59) 10      7 (      ) 2
5. 3 (6) 9      2 (13) 15      4 (      ) 10
6. 5 (28) 3      2 (16) 6      10 (      ) 2
7. 6 (19) 4      2 (15) 10      12 (      ) 4
8. 2 (14) 8      3 (7) 5      2 (      ) 7
9. 8 (9) 10      12 (16) 20      6 (      ) 8
10. 6 (7) 18      5 (10) 30      4 (      ) 20



Can you create your own questions and share them with us? We'd love to see them!

### What do I do?



Find the number that completes the last set of numbers in the same way as the first two sets.

Look at the first two sets of numbers and decide what calculation, or calculations, have been made to produce the number inside the brackets.

### Top Tips!



Common calculations could be:

- Add the two outer numbers together
- Multiply the two outer numbers together
- Divide the first number by the third number (and visa-versa)
- Subtract the first number from the third number (and visa-versa)
- Square or cube the first or third number
- Find the mid-point of the two outer numbers

Most questions will have more than one step, for example:

**Add the two outer numbers together and then subtract 4.**

### What skills do I need to improve?



Doing lots of practice questions will help with becoming familiar with question types but what else can you do to improve in this area?

- The 'Four Operations' are needed here and accurate mental arithmetic is key!
- You will need to be confident with adding, subtracting, multiplying and dividing.
- Any other topic questions that involve finding patterns or sequences in numbers would help with this type of question.

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### Answers

1. **9** - Add the two outer numbers together ( $8 + 9 = 18$ ) and divide the answer by 2 ( $18 \div 2 = 9$ ).
2. **31** - Multiply the two outer numbers together ( $5 \times 6 = 30$ ) and add 1 to the answer  
( $30 + 1 = 31$ ).
3. **78** - Multiply the two outer numbers together ( $9 \times 9 = 81$ ) and subtract 3 from the answer  
( $81 - 3 = 78$ ).
4. **51** - Square the first number ( $7 \times 7 = 49$ ) and add the answer to the third number  
( $49 + 2 = 51$ ).
5. **6** - Subtract the first number from the third number ( $10 - 4 = 6$ ).
6. **52** - Multiply the first number by 5 ( $10 \times 5 = 50$ ) and add the answer to the third number ( $50 + 2 = 52$ ).
7. **43** - Multiply the two outer numbers together ( $12 \times 4 = 48$ ) and subtract 5 from the answer  
( $48 - 5 = 43$ ).
8. **12** - Double the third number ( $7 \times 2 = 14$ ) and subtract the first number from the answer  
( $14 - 2 = 12$ ).
9. **7** - Add the two outer numbers together ( $6 + 8 = 14$ ) and divide the answer by 2  
( $14 \div 2 = 7$ ).
10. **9** - Divide the third number by the first ( $20 \div 4 = 5$ ) and add 4 to the answer ( $5 + 4 = 9$ ).

