

Order of operations puzzle

Use the order of operations to solve two puzzles: brackets and a secret code.

1 Study the model.

Worked example: where do the brackets go?

$3 + 5 \times 2 = 16$

Try it with no brackets: $3 + 5 \times 2 = 3 + 10 = 13$. Not 16.

Try brackets: $(3 + 5) \times 2 = 8 \times 2 = 16$. It works!

Try the brackets in different places.
Work out each try in order. Keep the one that makes the equation true.

2 Put in one pair of brackets to make each equation true.

1. $4 + 6 \times 3 = 30$

3. $5 \times 6 - 2 = 20$

5. $2 + 3 \times 4 + 1 = 21$

7. $7 \times 5 - 3 + 4 = 18$

2. $20 - 8 \div 4 = 3$

4. $18 \div 3 + 3 = 3$

6. $36 \div 6 - 2 = 9$

8. $40 - 10 - 5 \times 2 = 30$

3 Crack the code. Solve, then find the letter in the key.

Code key

2	3	4	5	11	14	17	18	20	32	36
N	O	E	K	A	G	R	P	T	L	S

9. $6 + 3 \times 4$

10. $(9 + 3) \div 4$

11. $20 - 12 \div 4$

12. $5 \times (7 - 3)$

13. $40 \div 5 + 3$

14. $2 \times 9 - 12 \div 3$

15. $(8 + 16) \div (2 + 4)$

letter

=		
=		
=		
=		
=		
=		
=		

The word:

9	10	11	12	13	14	15