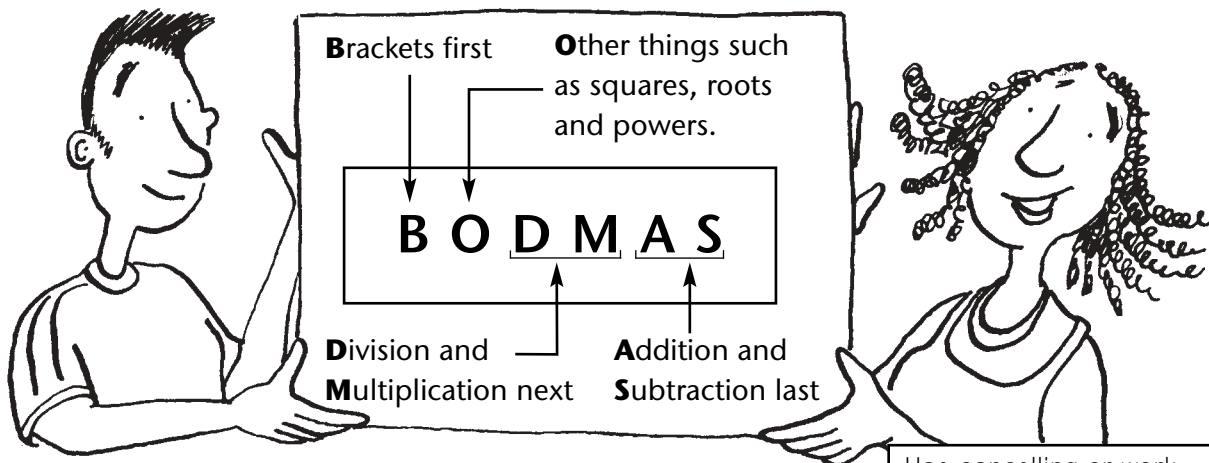


Use the order of operations, including brackets

Order, order...

A

The word BODMAS can help you to remember the order of operations.



Use cancelling or work out the answers mentally. **!**

1. Answer the questions using the order of BODMAS.

(a) $\frac{(5 \times 3)^2}{5 \times 3} = \frac{15^2}{15} = \frac{15 \times \cancel{15}}{\cancel{15}} = 15$

(b) $\frac{5 \times 3^2}{5 \times 3} =$ _____

(c) $\frac{(8 + 1)^2}{3^2} =$ _____

(d) $\frac{8 + 1^2}{3^2} =$ _____

(e) $\frac{2 \times 5^2}{(4 + 1)^2} =$ _____

(f) $\frac{(2 \times 5)^2}{(4 + 1)^2} =$ _____

(g) $\frac{2 \times 5^2}{4 + 1^2} =$ _____

(h) $\frac{(2 \times 5)^2}{4 + 1^2} =$ _____

(i) $\frac{\sqrt{9 + 7}}{\sqrt{1 + 3}} =$ _____

(j) $\frac{\sqrt{9 + 7}}{\sqrt{1 + 3}} =$ _____

2. Answer these questions, calculating in your head. Underline the part you do first.

(a) $48 \div (7 + 5) - 8 + 2 \times (12 \div 6)^3$ _____

(b) $6 + 2 \times (13 - 7)^2 - 5 \times \sqrt{100}$ _____

(c) $(4 + 3)^2 - 4^3 \div 2 + (5 - 4)^3$ _____

(d) $18 \div (10 - 7)^2 + 5 \times \sqrt[3]{4 \times 2}$ _____

B

Answer these questions. Give your answers to two decimal places.

Remember: when two sets of brackets are together, you have to multiply them. **!**

(a) $\frac{(13 - 6)^2 (5 + 2)^2}{(5 - 2)^3} = 88.93$

(b) $\frac{(15 + 2)^2 (8 - 5)^2}{(8 + 2)^3} =$ _____

(c) $\frac{(5 + 3)^2 (7 - 5)^3}{(6 - 3)^3} =$ _____

(d) $\frac{(15 - 9)^2 (8 - 5)^3}{\sqrt{(28 + 32)}} =$ _____

(e) $\frac{(16 - 9)^3 \times \sqrt{64}}{(17 - 9)^2} =$ _____

(f) $\frac{(12 - 9)^3 (1 + 2)^3}{\sqrt{(27 + 56)}} =$ _____

(g) $\frac{(14 - 7)^2 (8 - 2)^2}{2(4 + 1)^3} =$ _____

(h) $\frac{(4 - 1)^2 (9 - 5)^2}{3(8 - 5)^3} =$ _____



Don't worry if a calculation has only some of the BODMAS operations. Just continue to follow the order of BODMAS, leaving out any operations that are missing. Remember to put anything above or below a long division line in brackets.