

Order, order...

Use the order of operations, including brackets

C

1. Is this statement true? Check using your calculator if you need to.



$(-3)^2$ gives the same answer as -3^2 .

True False

Explain your answer. _____

2. In each pair of equations, one answer is correct and one is incorrect.

Find the incorrect answer and correct it.

If a is 3 then:

(a) $(-a)^2 = 9$ ✓ $-a^2 = -9$ ✓

(b) $(2a)^2 - 7 = 29$ $2a^2 - 7 = 29$

(c) $-a^2 + 4 = 13$ $(-a)^2 + 4 = 13$

(d) $4(a^2 - 1) = 32$ $4a^2 - 1 = 32$

(e) $-2a^2 + 1 = -17$ $(-2a)^2 + 1 = -17$

(f) $3(a^2 + 1) = 30$ $3a^2 + 1 = 30$

(g) $-4a^2 + 4 = 148$ $(-4a)^2 + 4 = 148$

(h) $-5a^2 - 2 = -47$ $-5(a^2 - 2) = -47$

(i) $(4a)^2 - 5 = 31$ $4a^2 - 5 = 31$

(j) $\sqrt{16 \times a + 1} = 7$ $\sqrt{16 \times a + 1} = 7$

(k) $\sqrt{25 \times a - 11} = 8$ $\sqrt{25 \times a - 11} = 8$

(l) $\frac{1}{3} a^3 = 9$ $(\frac{1}{3} a)^3 = 9$

(m) $(7 + -2a)^2 = 43$ $7 + (-2a)^2 = 43$



NOW TRY THIS!

• If $a = -3$, find the values of:

(a) $5(a^2 + 2) = \underline{\hspace{2cm}}$

(b) $5a^2 + 2 = \underline{\hspace{2cm}}$

(c) $(5a)^2 + 2 = \underline{\hspace{2cm}}$



Always look carefully at a calculation and think of BODMAS to see which order you should solve it in. Remember that the **O** in BODMAS reminds you to do 'Other' things such as squares, roots and powers before you do multiplication, division, addition and subtraction.

Developing Numeracy
Calculations
Year 9

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