

1. (c)

Answer

$$A - B = C \rightarrow 3 - 1 = 2$$

$$A^2 - B^2 = C^3 \rightarrow 3^2 - 1^2 = 2^3 \text{ or } 9 - 1 = 8 \quad 1$$

$$\text{Answer: } \mathbf{A = 3, B = 1, C = 2} \quad 1$$

$$\text{Total:} \quad 2$$

Method

You are told that $A - B = C$.

As C is positive, A must be greater than B .

Look at these lines given in part **(a)**:

$$\begin{aligned} 1 &= 1 = 1^2 \\ 1 + 3 + 5 &= 9 = 3^2 \end{aligned}$$

If you subtract the first line from the second, the result is this line from part **(b)**:

$$3 + 5 = 8 = 2^3$$

$$\text{So, } A^2 - B^2 = C^3 \text{ could be } 3^2 - 1^2 = 2^3 \text{ (or } 9 - 1 = 8)$$

Check this works for $A - B = C$:

$$3 - 1 = 2 \quad \checkmark$$

This means that $A = 3$, $B = 1$ and $C = 2$.

Top Tip

There are other ways of tackling this question, but this method is probably the simplest.

This question tells you to look at parts **(a)** and **(b)**. We have used the information given rather than the answers.

One important 'sense' to take into an exam is common sense!