Additive/multiplicative rules

6 questions | 11 marks

Equivalent correct methods earn the corresponding marks.

1. Continue 9, 15, 21, 27 with two more terms, using a constant addition rule. [2 marks]

Each jump adds 6.

$27 + 6 = 33;\ 33 + 6 = 39.$

Answer: 33, 39

2. Start at 48 and halve each time. Write the first five terms. [2 marks]

Include the starting number.

Divide by 2 four times.

Answer: 48, 24, 12, 6, 3

3. Fill the gap in 5, 10, __, 40, 80. Use a multiply-by-2 rule. [1 mark]

$10 \times 2 = 20.$

$20 \times 2 = 40.$

Answer: 20

4. Does add 4 fit every jump in 6, 10, 14, 19? Explain. [2 marks]

$10 - 6 = 4$ and $14 - 10 = 4$.

$19 - 14 = 5$, so add 4 does not fit all terms.

Answer: No. The last jump adds 5.

5. A club saves 6 dollars each week. It has 13 dollars now. How much will it have after three more weeks? [2 marks]

Three weeks add $3 \times 6 = 18$ dollars.

$13 + 18 = 31$ dollars.

Answer: 31 dollars

6. Create four terms starting at 7 using a multiply-by-3 rule. [2 marks]

$7 \times 3 = 21$; $21 \times 3 = 63$; $63 \times 3 = 189$.

Answer: 7, 21, 63, 189