Ω The Weekly Quiz | Proposed Question

Name: ?

Term: ? **Week**: ?

Question

Type your question here. You may include a diagram if appropriate. The question should be difficult enough to be awarded 2–4 marks.
(Remember – it needs to fit on a quarter-A4 sheet!)

Worked Solution (including marking scheme)

Type your answer here, and indicate where you would allocate marks. Try to anticipate different ways to solve the question – you may need to include multiple possible solutions.

Use the format below to present equations with correct formatting.

$$\frac{x-1}{3} = \frac{2x+1}{x-3}$$

$$(x-1)(x-3) = 3(2x+1)$$ 1 mark: cross-multiply

$$x^2 - 3x - x + 3 = 6x + 3$$

$$x^2 - 4x + 3 = 6x + 3$$

$$x^2 - 10x = 0$$ 1 mark: simplify algebra

$$x(x-10) = 0$$

$$x = 0 \text{ or } 10.$$ 1 mark: final answer (½ each)

Total: **3 marks**