Kelly is building a model of a jet and is using this scale:
3 cm = 10 m
If the actual jet is 36 m long, how long will the model be?

A. 8 cm
B. 9.6 cm
C. 10.8 cm
D. 12 cm

Proportions, reducing fractions, converting to decimal.

You can determine the scale based on 1 meter (solution 1) or apply the proportion directly (solution 2).

Solution 1: Determine scale for 1 meter, then apply proportion

$3\text{cm} = 10\text{m}$ Divide by 10

$0.3\text{ cm} = 1\text{m}$

$36\text{ m} =$ Actual Size

$\frac{0.3\text{cm}}{1\text{ m}} = \frac{X\text{ cm}}{36\text{ m}}$ cross-multiply

$(0.3)(36) = X$

$X = 10.8$ ✓

Solution 2: Apply proportion directly

$\frac{3\text{ cm}}{10\text{ m}} = \frac{X\text{ cm}}{36\text{m}}$ cross-multiply

$108 = 10X$

$X = 10.8$ ✓