

Grade 7 · Scale Drawings · Test Answer Key

Common Core 7.G.A.1 · mathovore.fr

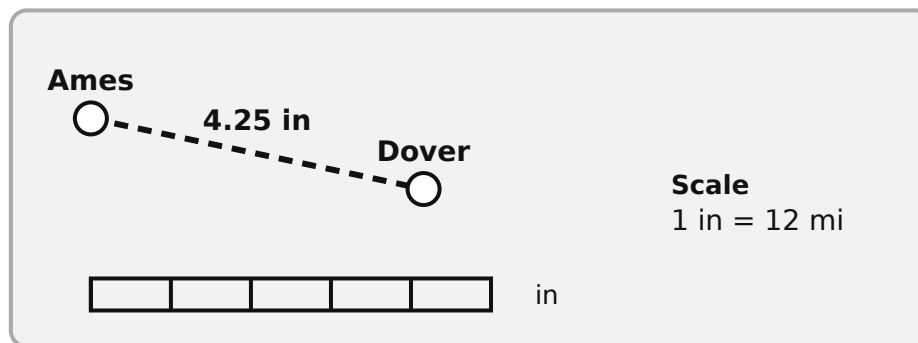
Use this answer key to score the test out of 20 points. Each solution shows the work, and the scoring note explains how points are given. Accept any correct equivalent method and award full credit when units are included.

Grade 7 Common Core: 7.G.A.1

Question 1: Map distance (2 points)

$$4.25 \times 12 = 51.$$

Answer: 51 miles.



$$4.25 \times 12 = 51.$$

Scoring: 1 point for multiplying by 12; 1 point for 51 with the unit.

Question 2: Finding a scale (2 points)

Divide: $10 \div 2.5 = 4$. Check: $2.5 \times 4 = 10$.

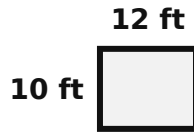
Answer: 1 in = 4 ft.

Scoring: 1 point for the division; 1 point for the correct scale.

Question 3: Bedroom blueprint (2 points)

Length: $2.4 \times 5 = 12$ ft. Width: $2 \times 5 = 10$ ft.

Answer: 12 ft by 10 ft.



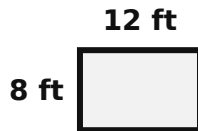
Actual bedroom: 12 ft by 10 ft (shape only).

Scoring: 1 point for each correct dimension.

Question 4: Garden area (2 points)

Actual dimensions: $3 \times 4 = 12$ ft and $2 \times 4 = 8$ ft. Area: $12 \times 8 = 96$ ft².

Answer: 96 ft².



Actual garden: 12 ft by 8 ft (shape only).

Scoring: 1 point for the actual dimensions; 1 point for the area with square units.

Question 5: Redraw the pool (2 points)

Actual: $5 \times 5 = 25$ ft and $2 \times 5 = 10$ ft. New drawing: $25 \div 2.5 = 10$ in and $10 \div 2.5 = 4$ in.

Answer: 10 in by 4 in.

Scoring: 1 point for the actual dimensions; 1 point for the new drawing dimensions.

Question 6: Model truck (2 points)

Actual length in inches: $18 \times 12 = 216$ in. The scale in inches is $6:216 = 1:36$. Since 36 in = 3 ft, the scale is 1 in = 3 ft.

Shortcut: $18 \div 6 = 3$.

Answer: 1 in = 3 ft.

Scoring: 1 point for a correct method; 1 point for the correct scale.

Question 7: Fractional map scale (3 points)

(a) $\frac{1}{2}$ in = 5 mi, so 1 in = 10 mi.

(b) $3 \times 10 = 30$ mi.

(c) $85 \div 10 = 8.5$ in.

Scoring: 1 point per part.

Question 8: Area mistake (3 points)

(a) $12 \times 5^2 = 12 \times 25 = 300$ ft².

(b) Marcus multiplied the area by the scale, 5. Area has two dimensions, so both lengths grow by 5.

(c) 25.

Scoring: 1 point per part.

Question 9: Fitting on a card (2 points)

$20 \div 8 = 2.5$ in and $14 \div 8 = 1.75$ in.

Since $2.5 \leq 3$ and $1.75 \leq 2$, the drawing fits.

Answer: 2.5 in by 1.75 in; yes.

Scoring: 1 point for the dimensions; 1 point for a correct comparison with the card.

Total
20 points