First Quarter (Chapters 1–2)

4. A moving company charges \$40 plus \$0.25 per mile to rent a van. Another company charges \$25 plus \$0.35 per mile to rent the same van. For what number of miles will the rental cost be the same for both companies?

*A. 150 miles

B. 180 miles

C. 260 miles

D. 650 miles

$y = .25x + 40$

$y = .35x + 25$

$.25x + 40 = .35x + 25$

$-.25x - 25 \quad -.25x - 25$

$\frac{15}{.1} = \frac{.1x}{.1}$

3. Which point on the number line shows $\sqrt{45}$?

F. point F

G. point G

*H. point H

I. point I

$\sqrt{45} \approx 6.7$

6. Which value is equivalent to 4^{-3}?

A. -12

B. -1

C. $-\frac{1}{64}$

*D. $\frac{1}{64}$

$\frac{1}{4^3} \quad \frac{1}{1}$

$\frac{1}{4 \cdot 4 \cdot 4} = \frac{1}{64}$

14

13. SHORT ANSWER What is the result when the monomial $-5x^3y^2z$ is raised to the third power?

$-125x^9y^6z^3$

$(-5x^3y^2z)^3$

$-125 x^9 y^6 z^3$

18. The area of a square living room is

12

R * start with ... 65
→ rate →

$5x + 65 = 125$

$-65 \quad -65$ (total)

$\frac{5x}{5} = \frac{60}{5}$

$x = 12$

21

Solve the equation below for t.

$$3t - 5 = -21 + t$$

$-t+5 \quad -t+5$

F. -52

$\frac{2t}{2} = \frac{-16}{2}$

G. -32

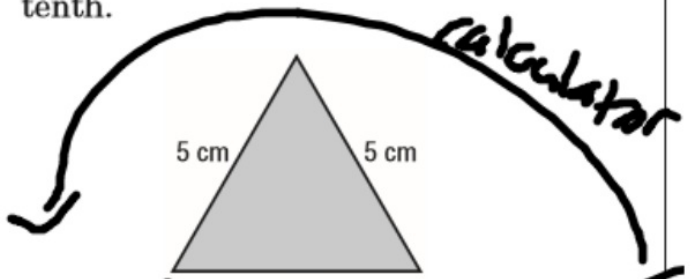
H. -13

$t = -8$

*I. -8

4

length of the triangle. What is the area of triangle below? Round to the nearest tenth.



calculator

10.8 cm²

$\frac{5^2\sqrt{3}}{4} = \frac{25\sqrt{3}}{4}$