

**SOL Warm-Up**  
**Graphing Calculator Active**

**A.13a** Estimating square roots to nearest tenth

1. What is the value of  $5\sqrt{33}$  to the nearest tenth?

- A 10.7
- B 28.7
- C 32.4
- D 165.0

2. What is the value of  $6\sqrt{20}$  to the nearest tenth?

- A 16.8
- B 22.8
- C 26.8
- D 30.8

3. What is the value of  $\sqrt{8x}$  to the nearest tenth if  $x = 120$ ?

- A 31.0
- B 45.5
- C 128
- D 960

4. What is the value of  $4\sqrt{3} \cdot \sqrt{14}$  to the nearest tenth?

- A 9.3
- B 6.5
- C 25.9
- D 33.4

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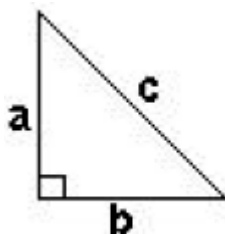
**A.13b** Finding square roots and interpreting values for a given situation

1. Which is closest to the value of  $x = \sqrt{\frac{y}{0.125}}$  if  $y = 98$ ?

- A 4
- B 28
- C 49
- D 784

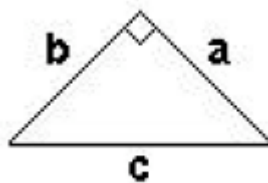
2. Which is closest to the value of  $c$ , if  $a = 8$  and  $b = 4$ ?

- A 6.93
- B 8.94
- C 9.38
- D 9.94



3. Which is closest to the value of  $b$ , if  $a = 6$  and  $c = 12$ ?

- A 3.16
- B 10.39
- C 10.94
- D 12.17



4. A wire 200 feet long goes from the ground to the top of a pole 125 feet tall. How far is the wire (at the ground) from the bottom of the pole (to the nearest tenth of a foot)?

- A 75.0 ft
- B 125.3 ft
- C 150.1 ft
- D 156.6 ft

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**A.13c** Expressing square roots in simplest radical form

1. Express  $\sqrt{50}$  in simplest radical form.

**A**  $2\sqrt{25}$

**B**  $2\sqrt{5}$

**C**  $5\sqrt{2}$

**D**  $25\sqrt{2}$

2. Express  $\sqrt{32}$  in simplest radical form.

**A**  $2\sqrt{8}$

**B**  $4\sqrt{2}$

**C**  $8\sqrt{2}$

**D**  $2\sqrt{4}$

3. Express  $\sqrt{2} \cdot \sqrt{18}$  in simplest radical form.

**A**  $3\sqrt{4}$

**B**  $2\sqrt{9}$

**C** 36

**D** 6