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BLM 2–9

Section 2.4 Extra Practice

1. Estimate the number that has the given square root. Then, calculate.

a) 4.1

Estimate:

4^2 = _____

5^2 = _____

$4.1^2 \approx$ _____

Calculate:

4.1^2 = _____

b) 11.9

Estimate:

11^2 = _____

12^2 = _____

$11.9^2 \approx$ _____

Calculate:

11.9^2 = _____

c) 0.75

Estimate:

0.7^2 = _____

0.8^2 = _____

$0.75^2 \approx$ _____

Calculate:

0.75^2 = _____

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(continued)

2. Estimate the area of each square, given its side length. Remember to include the units in each summary statement. Then, calculate.

$A = s^2$

a) 2.1 cm

Estimate:

2^2 = _____

3^2 = _____

$2.1^2 \approx$ _____

Calculate:

2.1^2 = _____

b) 8.9 m

Estimate:

$(8\text{ m})^2$ = _____

$(9\text{ m})^2$ = _____

$(8.9\text{ m})^2 \approx$ _____

Calculate:

$(8.9\text{ m})^2$ = _____

3. Determine whether each rational number is a perfect square.
If it is a perfect square, write the product as an expression of 2 equal rational factors.

Example: 49 Circle (YES) or NO. 49 = 7 × 7

a) 25 Circle YES or NO. _____

b) $\frac{1}{4}$ Circle YES or NO. _____

c) $\frac{25}{9}$ Circle YES or NO. _____

d) 0.81 Circle YES or NO. _____

e) $\frac{1}{10}$ Circle YES or NO. _____

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4. Find the square root of each number.

a) $\sqrt{256}$

b) $\sqrt{3.61}$

5. Calculate the side length of each square from its area.
Show your work.

a) 144 cm^2

$A = s^2$

$144 = s^2$

$\sqrt{144} = s$

_____ $= s$

b) 625 m^2

c) 0.09 mm^2

d) 0.36 km^2

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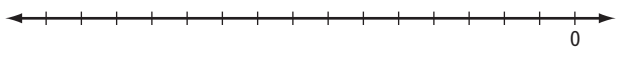
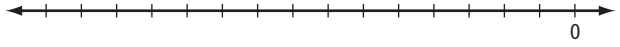
6. Estimate the square root to the specified number of decimal places. Then, calculate.

a) $\sqrt{83}$ to the nearest tenth



Estimate: *Calculate:*

b) $\sqrt{0.56}$ to the nearest hundredth



Estimate: *Calculate:*

7. A square lot has an area of 0.5 ha. What are the lot's dimensions to the nearest metre? Show your work. **Hint:** 1 ha = 10 000 m^2

0.5 ha = _____ m^2

$A = s^2$ Solve for *s*.

Sentence: _____

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