

Name _____ Date _____

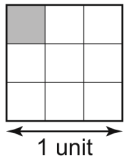
Master 1.16

Extra Practice 1

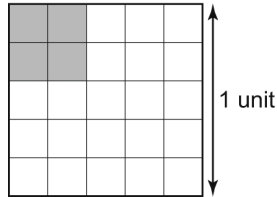
Lesson 1.1: Square Roots of Perfect Squares

1. Use each diagram to determine the value of the square root.

a) $\sqrt{\frac{1}{9}}$



b) $\sqrt{0.16}$



2. Which numbers below are perfect squares? How do you know?

a) $\frac{25}{121}$

b) 2.89

c) $\frac{2}{50}$

d) 0.004

3. Calculate the number whose square root is:

a) $\frac{5}{7}$

b) 1.6

c) 0.92

d) $\frac{10}{9}$

4. Determine the value of each square root.

a) $\sqrt{\frac{225}{49}}$

b) $\sqrt{\frac{9}{25}}$

c) $\sqrt{\frac{400}{324}}$

d) $\sqrt{\frac{8}{98}}$

5. Determine the value of each square root.

a) $\sqrt{6.76}$

b) $\sqrt{327.61}$

c) $\sqrt{0.0025}$

d) $\sqrt{0.0225}$

6. The area of a square garden is 12.25 m^2 .

a) Determine the perimeter of the garden.

b) The owner decides to put a gravel pathway around the garden. This reduces the area of the garden by 4.96 m^2 . What is the new side length of the garden?

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Master 1.17

Extra Practice 2

Lesson 1.2: Square Roots of Non-Perfect Squares

1. Which numbers below are perfect squares? How do you know?

a) $\sqrt{\frac{16}{53}}$ b) $\sqrt{\frac{1}{25}}$ c) $\sqrt{0.009}$ d) $\sqrt{10.24}$

2. State the benchmark(s) you could use to approximate each square root.

a) $\sqrt{29.4}$ b) $\sqrt{0.41}$ c) $\sqrt{\frac{18}{37}}$ d) $\sqrt{\frac{14}{3}}$

3. Use benchmarks to approximate each square root to the nearest tenth.

a) $\sqrt{11.6}$ b) $\sqrt{0.39}$ c) $\sqrt{\frac{21}{2}}$ d) $\sqrt{\frac{11}{52}}$

4. Suppose the $\sqrt{\quad}$ key on your calculator is broken. Explain how you could use your calculator to estimate $\sqrt{58.6}$ to the nearest tenth.

5. Use a calculator to approximate each square root to the nearest tenth.

a) $\sqrt{14.29}$ b) $\sqrt{\frac{15}{8}}$ c) $\sqrt{\frac{2}{19}}$ d) $\sqrt{0.7}$

6. In each triangle, determine the unknown length to the nearest tenth of a unit where necessary.

