Mid Unit Review

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Questions
-1ab, 2abcd,3,4,5,6,7,8,9,10

Pythagorean Theorem Worksheet

Composite Area Questions

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1.1

1. Without a calculator

determine the square root.

a) $\sqrt{\frac{25}{36}}$

b) $\sqrt{0.36}$

2. Calculate the number whose square root is:

a) 1.4 b) $\frac{3}{8}$ c) $\frac{7}{4}$ d) 0.5

Without a calculator

3. Determine the value of each square root.

a) $\sqrt{0.04}$ b) $\sqrt{\frac{1}{16}}$ c) $\sqrt{1.96}$ d) $\sqrt{\frac{4}{81}}$

e) $\sqrt{1.69}$ f) $\sqrt{\frac{121}{49}}$ g) $\sqrt{0.09}$ h) $\sqrt{\frac{289}{100}}$

4. Determine the value of each square root.

a) $\sqrt{3.24}$ b) $\sqrt{90.25}$ c) $\sqrt{2.56}$

5. A square has area 148.84 cm^2.

a) What is the side length of the square

b) What is the perimeter of the square?

6. A student said that $\sqrt{0.16} = 0.04$.

Without a calculator

Is the student correct?

If your answer is yes, how could you check that the square root is correct?

If your answer is no, explain how to get the correct square root.

7. Which decimals and fractions are perfect squares? Explain your reasoning.

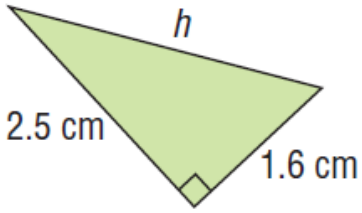
a) $\frac{9}{64}$ b) 3.6 c) $\frac{6}{9}$ d) 5.76

8. Use benchmarks to estimate each square root.

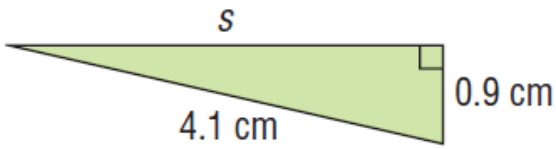
a) $\sqrt{5.6}$ c) $\sqrt{42.8}$

9. In each triangle, determine the unknown length.

a)



b)



10. Which of the following square roots are correct to the nearest tenth?
How do you know? Correct the square roots that are incorrect.

a) $\sqrt{0.09} \doteq 0.3$ b) $\sqrt{1.7} \doteq 0.4$ c) $\sqrt{8.5} \doteq 2.9$ d) $\sqrt{27.5} \doteq 5.2$

11. Find 2 decimals that have square roots between each pair of numbers.
Justify your answers.

a) 4 and 8

b) 0.7 and 0.9

c) 1.25 and 1.35

d) 0.25 and 0.35

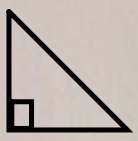
e) 4.5 and 5.5

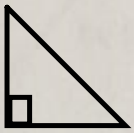
f) 0.05 and 0.1

esson 2: Pythagorean Theorem

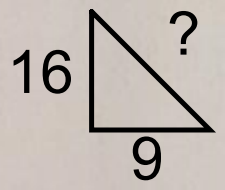
1) Find the length of the hypotenuse of a right triangle, if one leg is 15 and the other leg is 8.

2) The legs of a right triangle have lengths a and b. The hypotenuse has length c. Find the unknown length for each triangle.
(a) $b = 18,\ c = 82$ (b) $a = 12,\ c = 37$

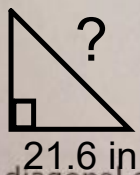




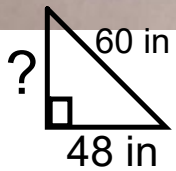
3) The measures of three sides of a triangle are 9, 16, and 20. Determine whether the triangle is a right triangle. Explain your answer.



4) The size of a television screen is given by the length of the diagonal of the screen. What size is a television screen that is 21.6 inches wide and 16.2 inches high?



5) If the diagonal of a rectangle measures 60 inches and one side measures 48 inches, what is the length of the other side of the rectangle?



Calculate the area of the BLUE