

Name:_____

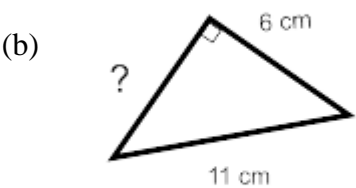
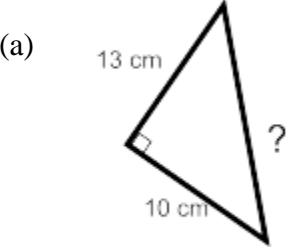
Grade 8

Unit 1 – Square Roots and Pythagorean Theorem Test REVIEW

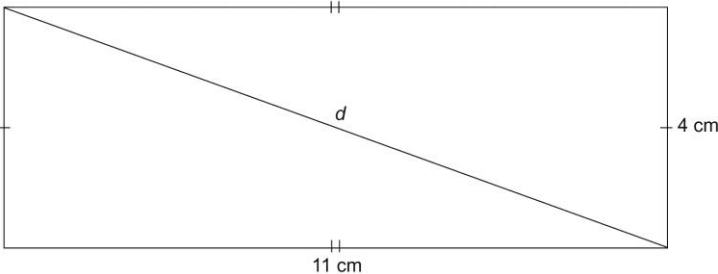
Show your work for the following

1. List the factors of 216. Is the number a perfect square? Explain with numbers of factors.

2. Find the length of the indicated side in each triangle (SHOW WORK)



3. Find the length of the diagonal, d, in this rectangle.



4. Simplify.
a) square 49 = _____

b) square root of 36 = _____

c) $(\sqrt{35})^2$ = _____

5. Estimate the following (make sure to show work)
(a) $\sqrt{190}$ (b) $\sqrt{20}$

7. Determine whether a triangle with each set of side lengths is a right triangle. Justify your answers. (Show work)
8cm, 9 cm, and 11 cm

8. A trucker has two companies to choose to work at.
Company A follows route 1 and pays \$15/km
Company B follows route 2 and pays \$19/km



- a) What is the trucker's pay if he goes with company A?
- b) What is the trucker's pay if he goes with company B?
(Note: this requires 2 steps)
- c) Which is the better option? Explain