Chapter 2: Pythagoras' theorem and surds

Chapter pre-test

Name _____

1 Calculate these squares without using your calculator.

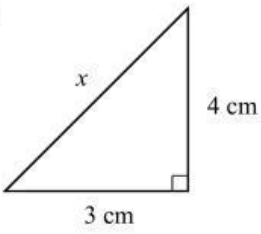
a 6^2 **b** 8^2 **c** 13^2 **d** 20^2 **e** 30^2 **f** 50^2

2 Calculate the positive value of these square roots without using your calculator.

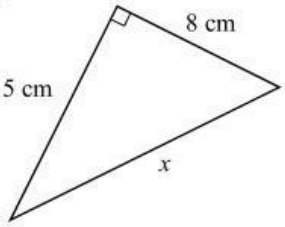
a $\sqrt{4}$ **b** $\sqrt{81}$ **c** $\sqrt{16}$ **d** $\sqrt{49}$ **e** $\sqrt{196}$ **f** $\sqrt{625}$

3 Use Pythagoras' theorem to find the length of the unknown side.

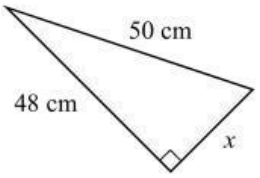
a



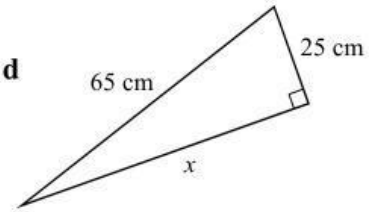
b



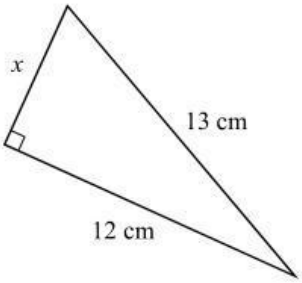
c



d



e

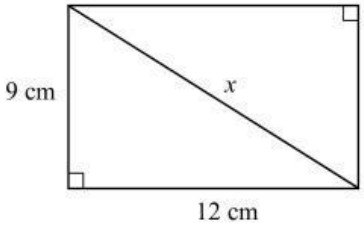


4 Round each of these numbers to three decimal places.

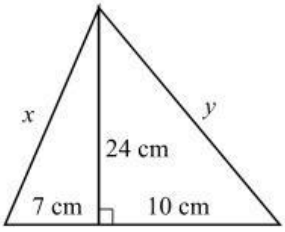
a 2.32419 **b** 14.0278212 **c** 37.9155

5 Find the length of the unknown sides in each of the following diagrams.

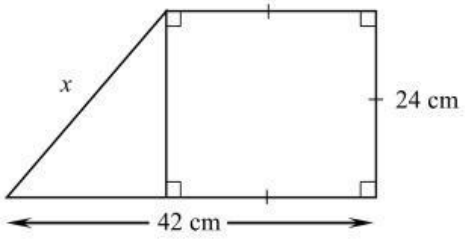
a



b



c



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