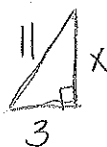


14. A painter places an 11-foot ladder against a house. The base of the ladder is 3ft from the house. How high on the house does the ladder reach?

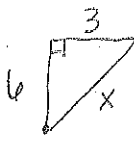


$$11^2 - 3^2$$

$$121 - 9 = 112$$

$$\sqrt{112} \approx 10.6 \text{ ft.}$$

15. Darius hikes north for 6 km. He then turns east and hikes 3 km. How far is he from his starting point, rounding to the nearest tenth of a kilometer?

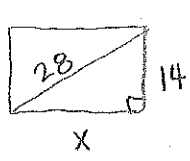


$$6^2 + 3^2$$

$$36 + 9 = 45$$

$$\sqrt{45} \approx 6.7 \text{ km}$$

16. A TV is measured by its diagonal distance across the screen. A 28" inch TV screen has a height of 14 inches. What is the width of this TV screen?



$$28^2 - 14^2$$

$$784 - 196 = 588$$

$$\sqrt{588} \approx 24.2 \text{ in}$$

17. If a triangle has sides 10 cm, 24 cm, and 26 cm, is it a right triangle?

$$10^2 + 24^2 \stackrel{?}{=} 26^2$$

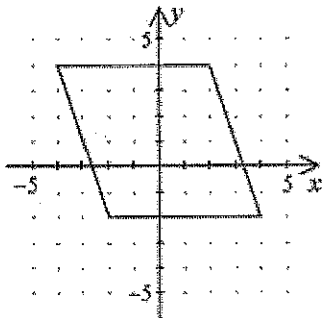
$$100 + 576 \stackrel{?}{=} 676$$

$$676 = 676 \checkmark \text{ yes!}$$

CHALLENGE:

On a separate sheet of paper, find the perimeter of each figure:

18.



19. (-3, 1) (2, -5) (4, 6)

