

pp. 304-305 #1, 3, 5-7, 9-12, & 14

1. The hypotenuse is the longest side and the legs are the other two sides.
3. 29 km
5. 9 in.
6. 12 mm
7. 24 cm
9. The length of the hypotenuse was substituted for the wrong variable.
$$a^2 + b^2 = c^2$$
$$7^2 + b^2 = 25^2$$
$$49 + b^2 = 625$$
$$b^2 = 576$$
$$b = 24$$
10. 6.5 ft
11. 16 cm
12. 37 mm
14. yes; The distance from the player's mouth to the referee's ear is 25 feet.
19. 6 and -6
20. -11
21. 13
22. -15