



5-7. $x \approx 7.50$ and $y \approx 8.04$ units; Students can use either sine or cosine to get the first leg, then any one of the trig ratios or the Pythagorean Theorem to get the other.

5-8. See below.

- a. False (a rhombus and square are counterexamples)
- b. True
- c. False (it does not mention that the lines must be parallel.)

5-9. B

5-10. See below.

- a. $\frac{4 \text{ cards less than } 5 \times (4 \text{ suits})}{52} = \frac{16}{52}$. If Aces are not included, $\frac{12}{52}$
- b. $1 - \frac{16}{52} = \frac{36}{52}$. If Aces are included, $\frac{40}{52}$
- c. $P(\text{red}) + P(\text{face}) - P(\text{red and face}) = \frac{26}{52} + \frac{12}{52} - \frac{6}{52} = \frac{32}{52}$

5-11. area = 74 sq. ft, perimeter = 47.66 ft

5-12. See below.

- a. $x = -3$
- b. $m = 10$
- c. $p = -4$ or $\frac{2}{3}$
- d. $x = 23$