

### SM3H 7.2 Law of Cosines & Area of Triangles (odd answers)

1.  $\alpha = 30.4^\circ$ ,  $\beta = 28.3^\circ$ ,  $c = 5.2$

3.  $\alpha = 163.9^\circ$ ,  $b = 4.5$ ,  $\gamma = 10.5^\circ$

5.  $\alpha = 52.0^\circ$ ,  $b = 13.1$ ,  $\gamma = 40.0^\circ$

7.  $\alpha = 120^\circ$ ,  $b = 3.5$ ,  $c = 4.8$

9. yes, 1 triangle

11. 66.3 square units

13. 328.4 square units

15. 55.5 square inches

17.  $x \approx 195.4$  km

19.  $\theta \approx 79.9^\circ$

21.  $x = 6, -6$ —rational