Lesson 7.4 Practice: The Law of Cosines

School Launch · Trigonometry · Unit 7: Oblique Triangles: The Laws of Sines and Cosines · Worksheet A

Scientific calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. In $\triangle ABC$, $a = 20$, $b = 14$, $C = 62°$. Find c (nearest tenth). EASY

2. In $\triangle ABC$, $a = 23$, $b = 21$, $C = 120°$. Find c (nearest tenth). EASY

3. In $\triangle ABC$, $a = 20$, $b = 22$, $C = 40°$. Find c (nearest tenth). EASY

4. In $\triangle ABC$, $a = 17$, $b = 18$, $C = 94°$. Find c (nearest tenth). MEDIUM

5. In $\triangle ABC$, $a = 6$, $b = 6$, $C = 48°$. Find c (nearest tenth). MEDIUM

6. In $\triangle ABC$, $a = 7$, $b = 9$, $C = 127°$. Find c (nearest tenth). MEDIUM

7. In $\triangle ABC$, $a = 11$, $b = 6$, $C = 77°$. Find c (nearest tenth). MEDIUM

8. A triangle has sides $a = 5$, $b = 15$, $c = 11$. Find angle C (nearest tenth). HARD

9. A triangle has sides $a = 12$, $b = 14$, $c = 18$. Find angle C (nearest tenth). HARD

10. A triangle has sides $a = 15$, $b = 13$, $c = 17$. Find angle C (nearest tenth). HARD