

Homework 28 (7.3)

The homework problems come from the exercises in Chapter 7 of the online text. Problem 7.3.4 refers to problem 4 in Chapter 7, Section 3. Record your answers to these problems in the EMCF titled “**Homework 28.**”

Note: Some of the homework problems in this assignment require the use of a calculator. Give exact answers whenever possible. However, any test problems involving these concepts will involve angles whose sine, cosine and tangent you can compute without a calculator. You **WILL NOT** be allowed to use a calculator on the test OR final. The problems on the test and final will not require a calculator.

1. Problem 7.3.4

A. $4\sqrt{2}$ mm

B. $\frac{8\sqrt{3}}{3}$ mm

C. 16 mm

D. $\frac{\sqrt{2}}{16}$ mm

E. No such triangle exists.

2. Problem 7.3.6

A. 51.32°

B. 38.68°

C. 41.41°

D. 67.98°

E. No such triangle exists.

3. Problem 7.3.8

A. 1.39 in

B. 4.50 in

C. 1.62 in

D. 3.85 in

E. No such triangle exists.

4. Problem 7.3.10

A. $\frac{14\sqrt{3}}{3}$ mm

B. $7\sqrt{2}$ mm

C. $7\sqrt{6}$ mm

D. $14\sqrt{6}$ mm

E. No such triangle exists.

5. Problem 7.3.12

A. 6.83 cm

B. 7.32 cm

C. 46.61 cm

D. 53.52 cm

E. No such triangle exists.

6. Problem 7.3.14

A. 3.70 ft

B. 6.49 ft

C. 7.21 ft

D. 7.84 ft

E. No such triangle exists.

7. Problem 7.3.16

A. 6.36°

B. 37.15°

C. $37.15^\circ, 142.85^\circ$

D. $37.15^\circ, 137.15^\circ$

E. No such triangle exists.

8. Problem 7.3.18
- A. $50.34^\circ, 129.66^\circ$
 - B. 50.34°
 - C. $39.76^\circ, 140.34^\circ$
 - D. 39.76°
 - E. No such triangle exists.
9. Problem 7.3.20
- A. 13.85°
 - B. 41.13°
 - C. $41.13^\circ, 68.87^\circ$
 - D. 68.87°
 - E. There is no such triangle.
10. Problem 7.3.22
- A. 11.84°
 - B. $34.75^\circ, 145.25^\circ$
 - C. 34.75°
 - D. 36.86°
 - E. There is no such triangle.
11. Problem 7.3.24 (find the measure(s) of side c)
- A. 5.57 cm
 - B. 6.23 cm
 - C. 11.00 cm
 - D. 11.36 cm
 - E. No such triangle exists.

12. Problem 7.3.24 (find the measure(s) of angle A)

- A. 32.65°
- B. 50.36°
- C. $79.64^\circ, 100.36^\circ$
- D. 79.64°
- E. No such triangle exists.

13. Problem 7.3.28 (find the measure(s) of angle K)

- A. 12.5°
- B. 52.77°
- C. $53.23^\circ, 126.77^\circ$
- D. 53.23°
- E. There is no such triangle.

14. Problem 7.3.28 (find the measure(s) of angle L)

- A. 20.77°
- B. 52.77°
- C. 53.23°
- D. $52.77^\circ, 53.23^\circ$
- E. There is no such triangle.

15. Problem 7.3.28 (find the measure(s) of side l)

- A. 3.32 m
- B. 4.09 m
- C. 4.97 m
- D. 7.47 m
- E. There is no such triangle.