

**Math 1312**  
**Homework 9**

Enter your answers in the EMCF titled "Homework 9" at [casa.uh.edu](http://casa.uh.edu) before the due date/time. If a problem comes from the exercises in the textbook then Problem 1.2.6 refers to Chapter 1, Section 2, problem number 6 etc.

1. Problem 4.1.4 b) and c)
  - A.  $NP = 12.7$ ,  $m\angle Q = 58^\circ$
  - B.  $NP = 12.7$ ,  $m\angle Q = 122^\circ$
  - C.  $NP = 17.9$ ,  $m\angle Q = 58^\circ$
  - D.  $NP = 17.9$ ,  $m\angle Q = 122^\circ$
  - E. None of the above
  
2. Problem 4.1.10 Find  $m\angle B$  only.
  - A.  $m\angle B = 63^\circ$
  - B.  $m\angle B = 51^\circ$
  - C.  $m\angle B = 129^\circ$
  - D.  $m\angle B = 117^\circ$
  - E. None of the above
  
3. Problem 4.1.16
  - A.  $m\angle A = m\angle B$
  - B.  $m\angle A < m\angle B$
  - C.  $m\angle A > m\angle B$
  
4. Problem 4.1.22
  - A. True
  - B. False
  
5. Problem 4.1.38
  - A.  $\angle R$  and  $\angle T$
  - B.  $\angle V$  and  $\angle S$
  - C.  $\angle V$  and  $\angle R$
  - D.  $\angle S$  and  $\angle T$
  - E. None of the above
  
6. Problem 4.2.6
  - A. Parallelogram
  - B. Rhombus
  - C. Kite
  - D. None of the above

7. Problem 4.2.10
- A. 7.65
  - B. 3.825
  - C. 15.3
  - A. 9.65
  - B. None of the above
8. For parallelogram  $ABCD$  (not shown), it follows
- A.  $\overline{AB} \cong \overline{BC}$
  - B.  $\overline{AC} \cong \overline{BD}$
  - C.  $\angle A \cong \angle B$
  - D.  $\angle A$  and  $\angle B$  are supplementary
9. In kite  $ABCD$ ,  $\overline{AB} \cong \overline{AD}$ . It follows that:
- A.  $\overline{AB} \cong \overline{CD}$
  - B.  $\overline{AC} \cong \overline{BD}$
  - C.  $\angle B \cong \angle D$
  - D.  $\angle A \cong \angle C$
10. Problem 4.2.12 Find  $ST$  only
- A. 20
  - B. 14
  - C. 16
  - D. 12
  - E. None of the above
11. Problem 4.3.8 Find  $AC$  only.
- A. 13
  - B. 14
  - C. 5
  - D. 12
  - E. None of the above
12. Problem 4.3.12 Find  $MP$  only. Simplify your answer.
- A. 9
  - B.  $9\sqrt{13}$
  - C. 6
  - D.  $3\sqrt{13}$
  - E. None of the above
13. Problem 4.3.14 Find  $MQ$  only. Simplify your answer.
- A. 17
  - B. 15
  - C.  $\sqrt{514}$
  - D. 8
  - E. None of the above

14. Problem 4.3.18

- A.  $\sqrt{296}$
- B. 10
- C. 14
- D.  $\sqrt{74}$
- E. None of the above

15. Problem 4.4.8

- A. Yes
- B. No