Math 1312
Homework 4

Enter your answers in the EMCF titled "Homework 4" at 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. Complementary angles are congruent.
    A. Always true
    B. Sometimes true
    C. Never true

2. Problem 1.7.8 b) and c)
    A. b) Hypothesis, c) Conclusion
    B. b) Conclusion, c) Hypothesis
    C. b) Hypothesis, c) Hypothesis
    D. b) Conclusion, c) Conclusion

3. Problem 1.7.10
    A. a), b), and c)
    B. b), c), and d)
    C. a), c), and d)
    D. a), b), and d)
    E. None of the above

4. Problem 1.7.12
    A. Yes
    B. No

5. Problem 1.7.26. Find $m\angle 4$ only.
    A. $40°$
    B. $50°$
    C. $80°$
    D. $60°$
    E. $140°$

6. Problem 2.1.2
    A. $m\angle 5 = 71°$; $m\angle 6 = 109°$
    B. $m\angle 5 = 109°$; $m\angle 6 = 71°$
    C. $m\angle 5 = 71°$; $m\angle 6 = 71°$
    D. $m\angle 5 = 109°$; $m\angle 6 = 109°$
    E. None of the above

7. Problem 2.1.4
   A. $m\angle 5 = 69.2°$; $m\angle 8 = 110.8°$
   B. $m\angle 5 = 69.2°$; $m\angle 8 = 69.2°$
   C. $m\angle 5 = 110.8°$; $m\angle 8 = 110.8°$
   D. $m\angle 5 = 110.8°$; $m\angle 8 = 69.2°$
   E. None of the above

8. Problem 2.1.10
   A. a) one; b) one
   B. a) one; b) infinitely many
   C. a) infinitely many; b) one
   D. a) infinitely many; b) infinitely many
   E. None of the above

9. Problem 2.1.12. Which angle(s) (other than $\angle A$) measure $92°$?
   A. $\angle B$
   B. $\angle D$
   C. $\angle C$
   D. $\angle B$ and $\angle D$
   E. None of the above

10. Problem 2.1.14. Find the measure of $\angle 7$.
    A. $m\angle 7 = 92°$
    B. $m\angle 7 = 90°$
    C. $m\angle 7 = 88°$
    D. $m\angle 7 = 86°$
    E. None of the above

11. Problem 2.2.2. Write the contrapositive and classify as true or false.
    A. If $x < 2$, then $x = 0$. True
    B. If $x < 2$, then $x = 0$. False
    C. If $x = 0$, then $x \leq 2$. True
    D. If $x = 0$, then $x \leq 2$. False
    E. None of the above

12. Problem 2.2.4. Write the inverse.
    A. In a plane, if two lines are perpendicular to the same line, then these lines are parallel
    B. In a plane, if two lines are not parallel to the same line, then they are not perpendicular.
    C. In a plane, if two lines are parallel, then they are perpendicular to the same line.
    D. In a plane, if two lines are perpendicular to the same line, then these lines are not parallel.
    E. None of the above

13. Problem 2.2.10
    A. $x > 3$
    B. $x \geq 3$
    C. $x < 3$
    D. $x \leq 3$
    E. None of the above

14. Problem 2.2.12
    A. Assume that $m\angle B = m\angle A$.
    B. Assume that $m\angle B \neq m\angle A$.
    C. Assume that $AC > BC$ in $\triangle ABC$.
    D. Assume that $AC \leq BC$ in $\triangle ABC$.
    E. None of the above

15. Problem 2.2.20
    A. Triangle RST and triangle XYZ do not have the same shape.
    B. Triangle RST and triangle XYZ have the same shape.
    C. No conclusion is possible
    D. None of the above