GEOMETRY - CHAPTER 2
Practice Test
ANSWERS

1) False, Points A,B and C do not have to be collinear

2) Conditional - If an angle is acute, then it has a measure less than 90 degrees.

   Hypothesis – An angle that is acute

   Conclusion – Measures less than 90 degrees

   Converse – If an angle has a measure less than 90 degrees, then it is acute

   Inverse – If an angle is not acute, then it's measure is not less than 90 degrees.

   Contrapositive – If an angle does not have a measure less than 90 degrees, then it is not acute.

3) Law of Syllogism
   c) If two angles are complementary, then both angles are acute.

4) Invalid
   Just because two angles are congruent, it does NOT mean they are vertical.

5) Symmetric Property

6) Substitution Property

7) Multiplication Property

8) Sometimes, the points could be collinear.

9) Never, lines that intersect will cross at exactly one point or they will coincide

10) Always, restated postulate 2.5

11) $x = 6$
    $\angle 5 = 30, \angle 6 = 30, \angle 7 = 60, \angle 8 = 60$

12) $x = 10$
    $\angle 11 = 110, \angle 12 = 110, \angle 13 = 70$

13)

1) $\angle 1$ and $\angle 2$ form a linear pair.   1) Given

    $\angle 1 + \angle 3 = 180$

2) $\angle 1 + \angle 2 = 180$ 2) Supplement Theorem

3) $\angle 1 + \angle 2 = \angle 1 + \angle 3$ 3) Substitution

4) $\angle 2 = \angle 3$ 4) Subtraction

5) $\angle 2 \cong \angle 3$ 5) Def. of Congruence

14)

1) $\overline{AB} \cong \overline{DE}$ 1) *Given*

    B is the midpoint of $\overline{AC}$

    E is the midpoint of $\overline{DF}$

2) $AB = DE$ 2) Def. of Congruence

3) $AB = BC$ 3) Def. of Midpoint

    $DE = EF$

4) $DE = BC$ 4) Substitution

5) $BC = EF$ 5) Substitution

6) $\overline{BC} \cong \overline{EF}$ 6) Def. of Congruence