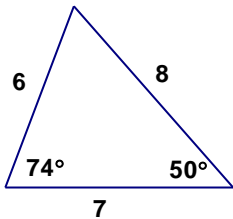# Geometry Chapter 4 Test Practice Test 3
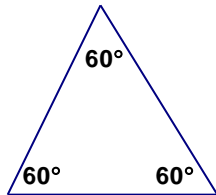
Name _____

Consider each of the triangles below. Circle all that apply to the triangle.
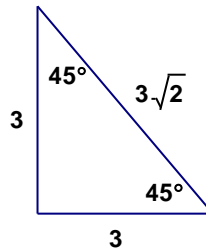
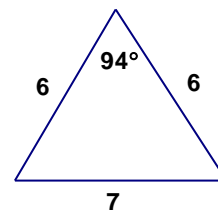| Triangle A	Triangle B	Triangle C	Triangle D	Triangle E
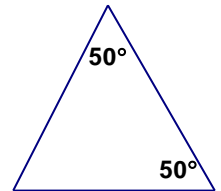
1. Acute   Obtuse   Right   Scalene   Isosceles   Equilateral

2. Acute   Obtuse   Right   Scalene   Isosceles   Equilateral

3. Acute   Obtuse   Right   Scalene   Isosceles   Equilateral

4. Acute   Obtuse   Right   Scalene   Isosceles   Equilateral

5. Acute   Obtuse   Right   Scalene   Isosceles   Equilateral

Given that $\triangle NOP \cong \triangle BXD$ match the line segment or angle that is congruent to the given line segment or angle.

A. $\overline{BX}$ B. $\overline{XD}$ C. $\overline{BD}$ D. $\angle B$ E. $\angle X$

_____ 6. $\overline{OP}$ _____ 7. $\angle O$

_____ 8. $\overline{NO}$ _____ 9. $\overline{PN}$

Let the following be true: $\triangle ABC \cong \triangle XYZ$, AB = 8, BC = 10, AC = 11.

_____ 10.   If ZX = 2n – 1, what is the value of n?

_____ 11.   If XY = 2n, what is the value of n?

_____ 12.   If $\triangle RST \cong \triangle HIJ$, $\angle R = 97°$, $\angle J = 37°$, and $\angle S = 4x+14$, what is the value of x?

_____ 13.   R, S, and T are the verticies of one triangle. E, F, and D are the verticies of
another triangle. $\angle R = 60°, \angle S = 80°, \angle F = 60°, \angle D = 40°, RS = 7$, and $EF = 7$
Which postulate would let you conclude that the two triangles are congruent?
A. ASA   B. SSS   C. AAS   D. SAS
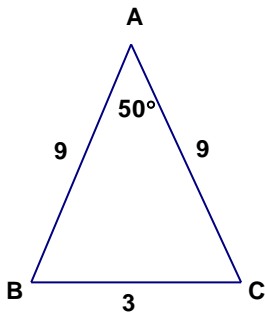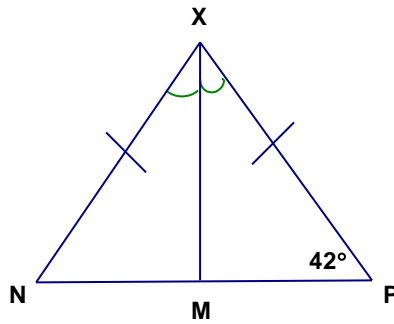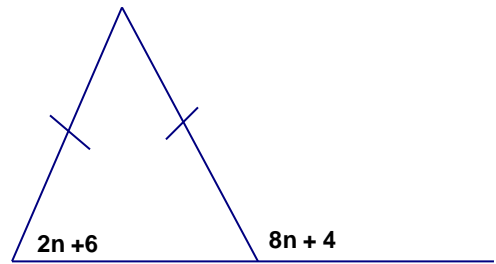
Figure 1

A

50°

9   9

B   3   C

Figure 2

X

42°

N   M   P

Figure 3

2n +6   8n + 4

Figure 4

A

P   X

B   N   C

Figure 5

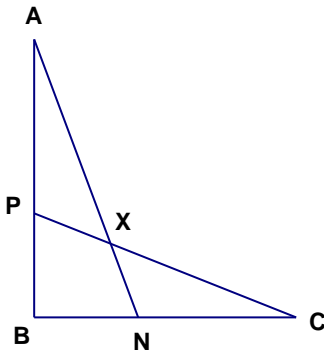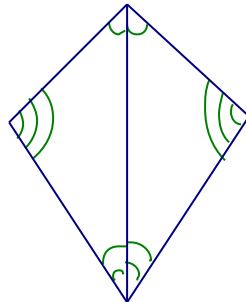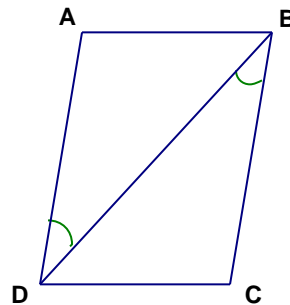**Figure 6**

A   B

D   C

_____   14.   In figure 1, what is the measurement of $\angle B$?

_____   15.   In figure 2, what is the measurement of $\angle MXN$?

_____   16.   In figure 3, what is the value of n?

_____   17.   In figure 4, $\overline{AB} \cong \overline{CB}$ and $\overline{BN} \cong \overline{BP}$.
                     Which could be used to prove that $\triangle BNA \cong \triangle BPC$?
                     A. AAS   B. SAS   C. ASA   D. SSS

_____   18.   In figure 5, what two postulates could prove that the two triangles are congruent?
                     A. SAS and AAS   B. ASA and SAS
                     C. ASA and SSS   D. ASA and AAS

_____   19.   In figure 6, what else must you know to prove that the triangles are
                     congruent by ASA?
                     A. $\angle BDC \cong \angle ABD$ B. $\angle BDC \cong \angle BAD$
                     C. $\angle DCB \cong \angle BAD$ D. $\angle ADC \cong \angle BCD$

_____   20.   Give the equation in slope intercept form that goes through (2, 9)
                           and is perpendicular to y = ½ x + 10.