Supplemental Worksheet  
Volume 7 Lesson 1

Use ∠A, ∠B, and ∠C below to answer problems 1 - 5.

1. Which angle is an Obtuse Angle? __________  
2. The ∠B = __________  
3. Which angle is most likely to measure 100°? __________  
4. Which angle is an Acute Angle? _______  
5. Which angle is a Right Angle? _______  
6. Draw the only line that can pass through point C AND be parallel to AB.

7. Draw the only line that can both pass through point D and be perpendicular to EF.

8. The vertex of ∠WZY is _______.
9. The angle adjacent to ∠VZW is ∠________.
10. ∠VY = ______°
11. In the Isosceles Triangle above, if side $AB = 12$, then side $AC = \underline{\hspace{2cm}}$.

12. In the Equilateral Triangle above, what is the measurement of $\angle B$?

13. In the Right triangle above, the hypotenuse is side ________.

14. In the Right Triangle above, if $\angle A = 40^\circ$, then $\angle C = \underline{\hspace{2cm}}$.

15. In the Isosceles Triangle above, if $\angle A = 70^\circ$, then $\angle C = \underline{\hspace{2cm}}$.

16. In the Equilateral Triangle above, if side $BC = 8$, then side $AC = \underline{\hspace{2cm}}$.

17. One of the three triangles above is a scalene triangle. Is it an obtuse, acute, or right scalene triangle? _____________

The Pythagorean Theorem is $a^2 + b^2 = c^2$. Use it to find the length of missing side in each triangle.

18. \[
\begin{align*}
3 & \quad x \\
4 &
\end{align*}
\]

19. \[
\begin{align*}
12 & \quad x \\
20 &
\end{align*}
\]

20. \[
\begin{align*}
x & \quad 28 \\
21 &
\end{align*}
\]
Use $\angle A$, $\angle B$, and $\angle C$ below to answer problems 1 - 5.

1. Which angle is an Obtuse Angle? $A$, because it is larger than $90^\circ$.
2. The $\angle B = 90^\circ$. You can tell by the box in the corner.
3. Which angle is most likely to measure $100^\circ$? $A$, because it is larger than $90^\circ$.
4. Which angle is an Acute Angle? $C$, because it is less than $90^\circ$.
5. Which angle is a Right Angle? $B$, you can tell by the box in the corner.

6. Draw the only line that can pass through point C AND be parallel to $\overline{AB}$.

7. Draw the only line that can both pass through point D and be perpendicular to $\overline{EF}$.

8. The vertex of $\angle WZY$ is $Z$.
9. The angle adjacent to $\angle VZW$ is $\angle WZX$.
10. $\angle VY = 180^\circ$
11. In the Isosceles Triangle above, if side $AB = 12$, then side $AC = 12$, they are equal.

12. In the Equilateral Triangle above, what is the measurement of $\angle B$? $\angle B = 60^\circ$ In an equilateral triangle, every angle equals $60^\circ$.

13. In the Right triangle above, the hypotenuse is side $AC$. The side that is not part of the right angle is the hypotenuse. It is also the longest side.

14. In the Right Triangle above, if $\angle A = 40^\circ$, then $\angle C = 50^\circ$. The three angles of a triangle will always total $180^\circ$. Angle $B$ is a right angle, so it measures $90^\circ$. $90 + 40 = 130$, so angle $C$ must equal $50^\circ$.

15. In the Isosceles Triangle above, if $\angle A = 70^\circ$, then $\angle C = 55^\circ$. The two base angles of an Isosceles triangle are always equal and all three angles must equal $180^\circ$.

$$70 + 2x = 180$$
$$2x = 110$$
$$x = 55$$

16. In the Equilateral Triangle above, if side $BC = 8$, then side $AC = 8$. All three sides of an equilateral triangle are always equal.

17. One of the three triangles above is a scalene triangle. Is it an obtuse, acute, or right scalene triangle? A right scalene triangle. The center triangle is a scalene triangle because all three sides are different lengths. It is a RIGHT scalene triangle because one of the angles is a right angle.

18. $3^2 + 4^2 = x^2$
   $9 + 16 = x^2$
   $25 = x^2$
   $x = 5$

19. $12^2 + x^2 = 20^2$
   $144 + x^2 = 400$
   $x^2 = 256$
   $x = 16$

20. $21^2 + 28^2 = x^2$
   $441 + 784 = x^2$
   $1225 = x^2$
   $x = 35$