Geometry
#8: Ch. 1 Review
Vocabulary and Formulas:

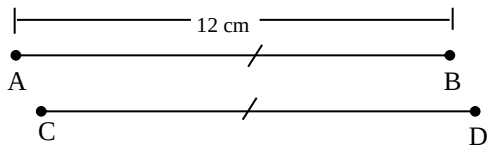
Name: _____
Period: ____

1. Draw the figure. You will need a protractor.
   a) $\angle ABC$ and $\angle CBD$ are a linear pair. The $m\angle ABC = 135°$. Find $m\angle CBD$.
   b) $\angle 1$ and $\angle 2$ are adjacent and complementary. The $m\angle 1 = 20°$. Find the $m\angle 2$
   c) $\angle A$ and $\angle B$ are supplementary but **not** adjacent and $m\angle A = 30°$. Find the $m\angle B$
   d) $\angle APE$ so that it measures 140°. Add to the drawing $\overrightarrow{PT}$ so that $\overrightarrow{PT}$ *bisects* $\angle APE$. Label the measure of each of the smaller angles on the figure.

2. Define or describe each term or write the formula.
   Acute Angle, Bisector, Complementary Angles, Linear Pair, Obtuse Angle, Right Angle, Straight Angle, Supplementary Angles, Distance Formula, Midpoint Formula, Slope Formula

3. Circle the statements that are true and use correct notation. Cross out the incorrect statements.
   Make sure you understand the difference between = & ≅, AB & $\overline{AB}$, and $m\angle ABC$ & $\angle ABC$

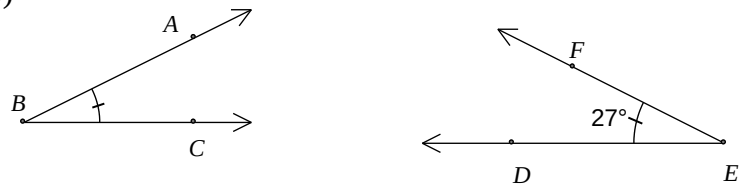
   a)



   $\overline{AB} \cong \overline{CD}$ $AB \cong CD$ $AB = CD$

   $AB = 12\text{ cm}$ $\overline{CD} = 12\text{ cm}$

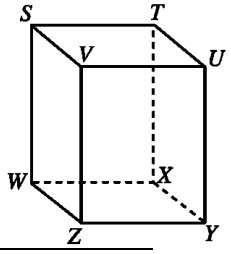
   b)



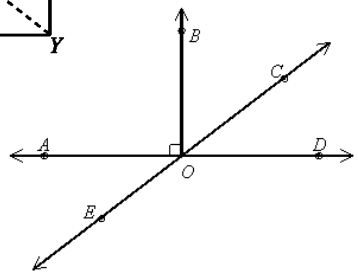
   $\angle ABC = 27^\circ$ $m\angle ABC \cong 27^\circ$ $m\angle FED = 27^\circ$

   $m\angle FED = m\angle ABC$ $m\angle FED \cong m\angle ABC$ $\angle FED \cong \angle ABC$

4. Planes
   a) Name the plane that represents the top of the box.
   b) Name the intersection plane *SVW* and plane *STX*.
   c) Name another point on plane *SWX*.
   d) Name the intersection plane *VUY*, plane *TUX*, and plane *SVT*.
   e) Name the planes whose intersection is $\overline{ZY}$.



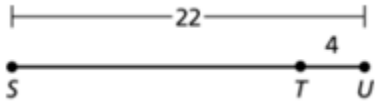
5. Angles
   a) Name a right angle b) Name an acute angle.
   c) Name an obtuse angle. d) Name a straight angle.
   e) Name two angles that are complementary.
   f) Name two angles that are vertical.
   g) $\angle BOC$ and _____ are a linear pair.



6. Consider $\triangle TAG$ with $T(1,2)$ $A(3,6)$ $G(11,2)$
   a) Graph the points and draw the triangle.
   b) Find the length of each side.
   c) Find the area and perimeter of the triangle.

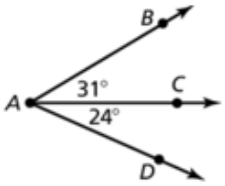
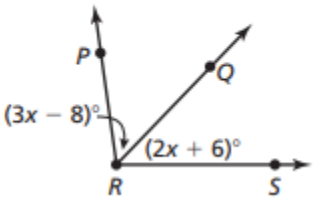
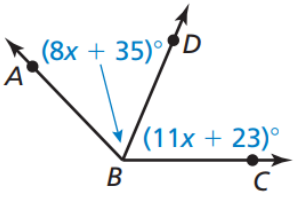
7. Consider the points $C(-3,7)$ $G(5,1)$
   a) Find the midpoint of $\overline{CG}$.
   b) Find the slope of $\overline{CG}$.

8. Find *ST*



9. $\angle WXY$ and $\angle YXZ$ are supplementary angles, $m\angle WXY = (6x + 59)°$, and $m\angle YXZ = (3x - 14)°$. Find $m\angle WXY$ and $m\angle YXZ$.

10. The measure of an angle is four times the measurement of its complement. Write and solve an algebraic equation to find the measure of each angle.

11. Find $m\angle BAD$. 	12. $m\angle PRS = 98°$. Find $m\angle QRS$. 	13. $\overrightarrow{BD}$ bisects $\angle ABC$. Find $m\angle ABC$. 
14. Simplify: a) $\sqrt{32}$ c) $\sqrt{3}+5\sqrt{3}$ b) $\sqrt{16}$ d) $\sqrt{6}\sqrt{2}$	15. Simplfy: a) $\left(\frac{1}{3}\right)^2+\frac{1}{2}\left(\frac{5}{3}\right)$	16. Graph: a) $y=3$ b) $6x+2y=4$