

4-19-17

Aim: SWBAT find the missing angle measurements algebraically and justify reasons based on the given.

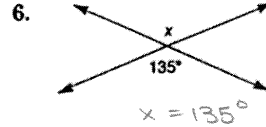
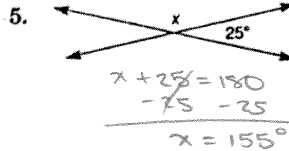
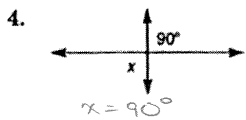
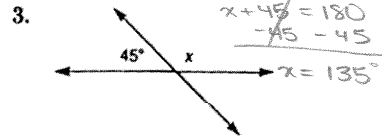
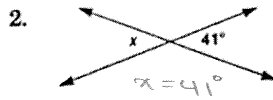
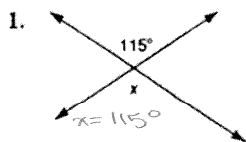
Do Now: Finish Algebra and Angles WS Evens

HW: Pg. 407 # 24 - 26 & Angle Relationships Review WS

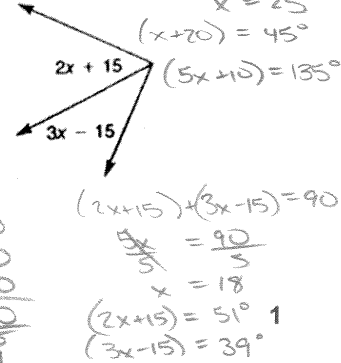
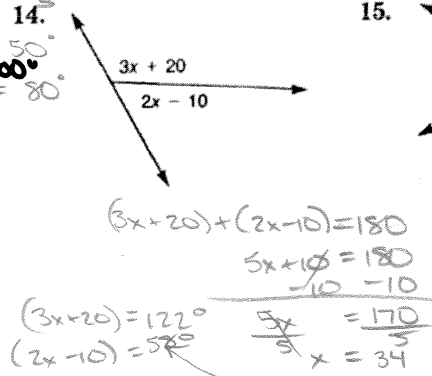
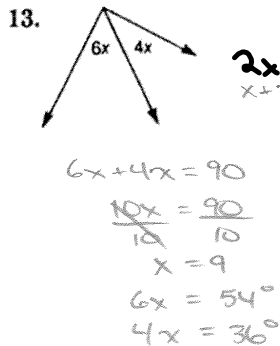
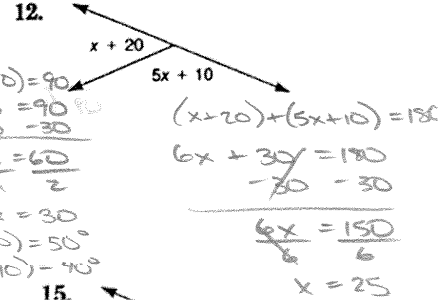
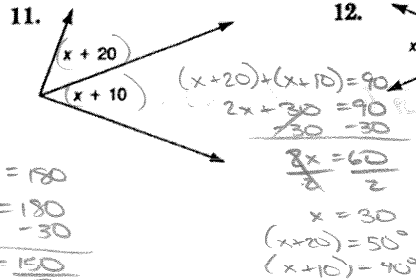
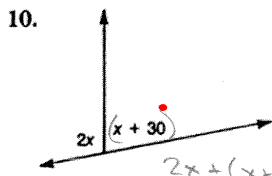
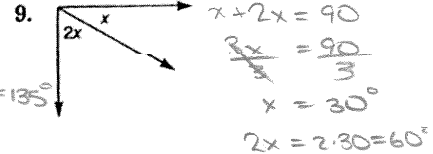
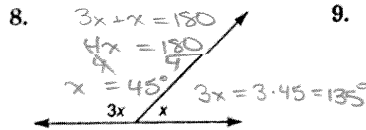
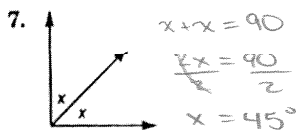
Quiz Monday

Angle Relationships

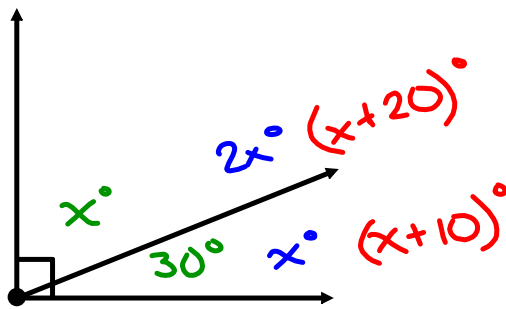
Find the value of x in each figure.



Each of the following pairs of angles is either complementary or supplementary. Find the measure of each angle.



Complementary Angles are angles whose sum is 90° .



Solve algebraically.

$$\begin{array}{r} x + 30 = 90 \\ - 30 \quad - 30 \\ \hline x = 60 \end{array}$$

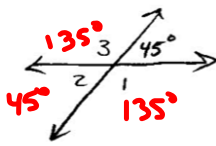
$$\begin{aligned} 2x + x &= 90 \\ \frac{3x}{3} &= \frac{90}{3} \\ x &= 30 \\ 2x &= 60 \end{aligned}$$

$$\begin{aligned} (x+20) + (x+10) &= 90 \\ x+20 + x+10 &= 90 \\ 2x+30 &= 90 \\ - 30 \quad - 30 \\ \hline 2x &= 60 \\ \frac{2x}{2} &= \frac{60}{2} \\ x &= 30 \\ (x+20) &= 50 \\ (x+10) &= 40 \end{aligned}$$

Pg. 406

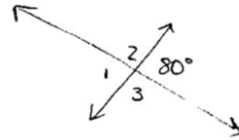
Find the missing angles. Justify your reasoning.

⑩

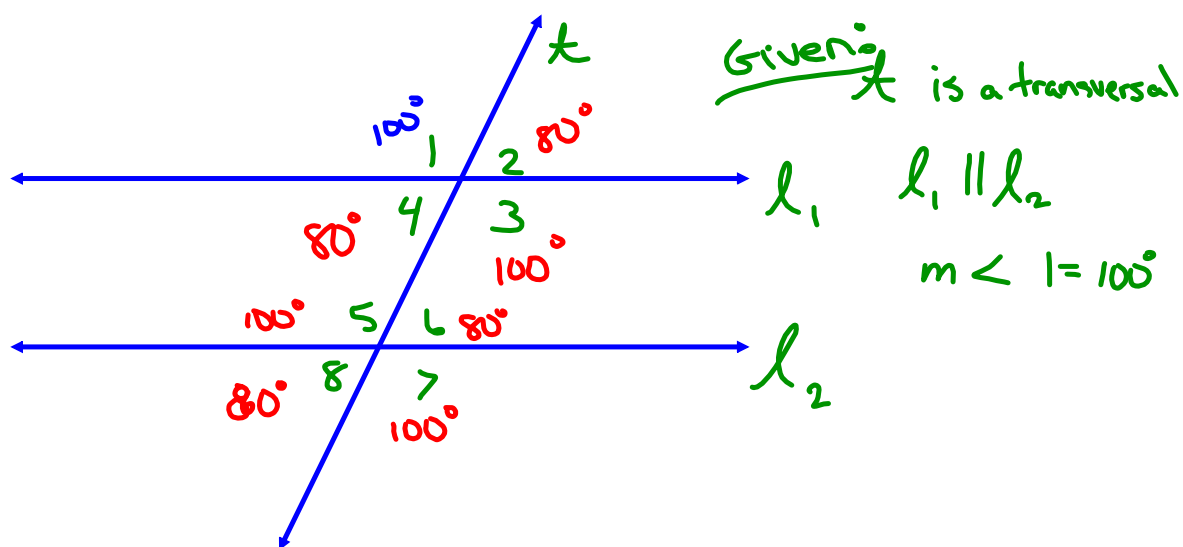


- $\angle 1 = 135^\circ$ because it is supp. to the given angle.
- $\angle 2 = 45^\circ$ because vertical angles are always \cong
- $\angle 3 = 135^\circ$ because it is supp. to the given angle.

⑪



- $\angle 1 = 80^\circ$ because vertical \angle 's are always \cong .
- $\angle 2 = 100^\circ$ because it's supp. to the given angle.
- $\angle 3 = 100^\circ$ because it's supp. to the given angle.



What are the measures of angles 5, 6, 7, and 8?

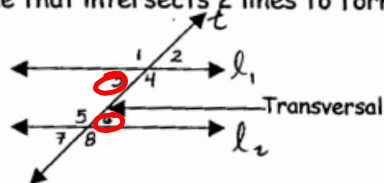
Aim: SWBAT identify the relationships of angles formed by 2 parallel lines and a transversal.

Key Terms: parallel, transversal, interior angles, exterior angles, corresponding angles

alternate interior & exterior

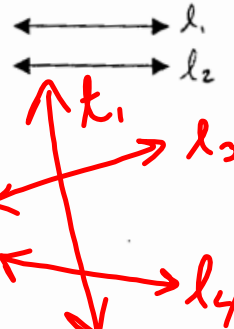
parallel lines - lines in the same plane that do not intersect.

Transversal - A line that intersects 2 lines to form eight angles.



Interior angles: $\angle 3, \angle 4, \angle 5, \angle 6$

Exterior angles: $\angle 1, \angle 2, \angle 7, \angle 8$



Alternate interior angles - interior angles found on opposite sides of the transversal

$\angle 3$ & $\angle 6$ are alternate interior angles

$\angle 4$ & $\angle 5$ are alternate interior angles

Alternate exterior angles - exterior angles found on opposite sides of the transversal

$\angle 1$ & $\angle 8$ are alternate exterior angles

$\angle 2$ & $\angle 7$ are alternate exterior angles

******* When 2 parallel lines are cut by a transversal the alternate interior angles are congruent (\cong).

Corresponding angles - angles that hold the same position on 2 different lines cut by a transversal.

$\angle 1$ & $\angle 5$ are corresponding angles

$\angle 2$ & $\angle 6$ are corresponding angles

$\angle 3$ & $\angle 7$ are corresponding angles

$\angle 4$ & $\angle 8$ are corresponding angles

******* When 2 parallel lines are cut by a transversal the corresponding angles are congruent (\cong).

******* When 2 parallel lines are cut by a transversal the alternate exterior angles are congruent (\cong).