

Warm up

1) what's the late work policy?

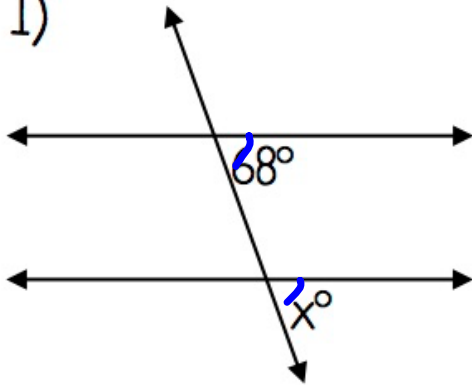
2) What are the expectations during a lesson?

3) when is it ok to use your cellphone during class?

7-3 Basic Proofs Using Parallel Lines

I can do basic proofs using parallel lines and corresponding angles, alternate interior angles, alternate exterior angles, and vertical angles.

1)



Type of angle pair

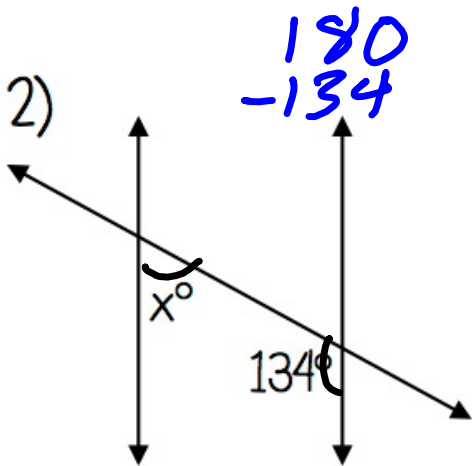
Corresponding

These angles are

Congruent

so... $X = \underline{68^\circ}$

2)



Type of angle pair

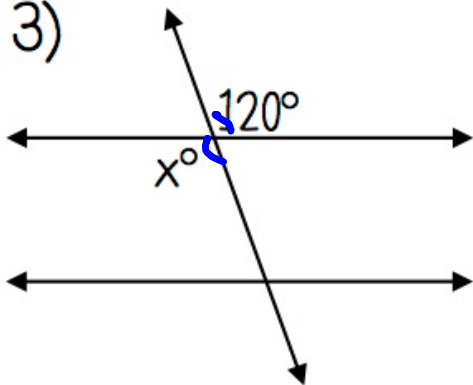
Same side Interior

These angles are

Supplementary

so... $X = \underline{46^\circ}$

3)



Type of angle pair

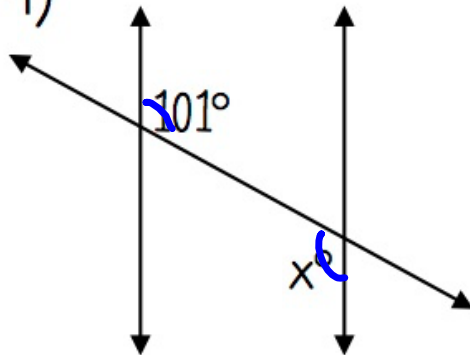
Vertical

These angles are

Congruent

so... $x =$ 120°

4)



Type of angle pair

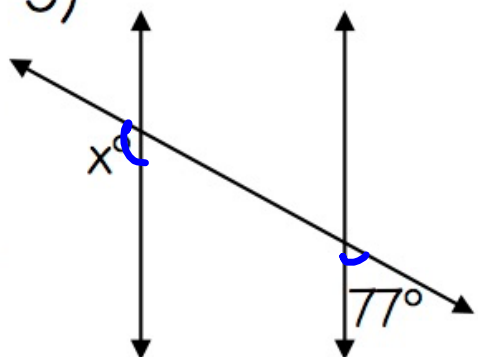
Alternate Interior

These angles are

Congruent

so... $x =$ 101°

5)



Type of angle pair

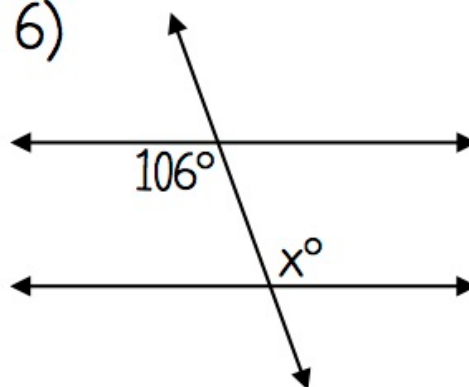
Same Side Exterior

These angles are

Supplementary

so... $x = \underline{103^\circ}$

6)



Type of angle pair

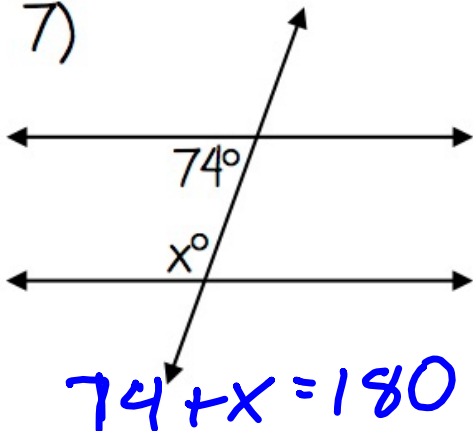
Alt. Int. \angle

These angles are

Congruent

so... $x = \underline{106^\circ}$

7)

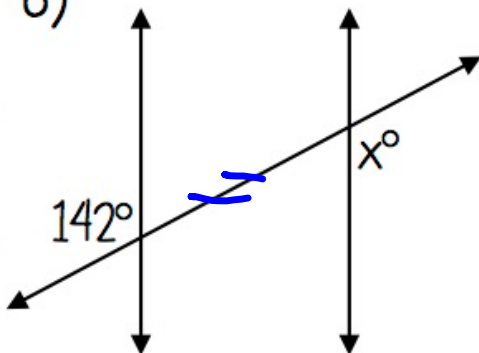


Type of angle pair
Same Side Int

These angles are
Supp.

so... $x =$ 106

8)



Type of angle pair
Alt. Ext \angle 's

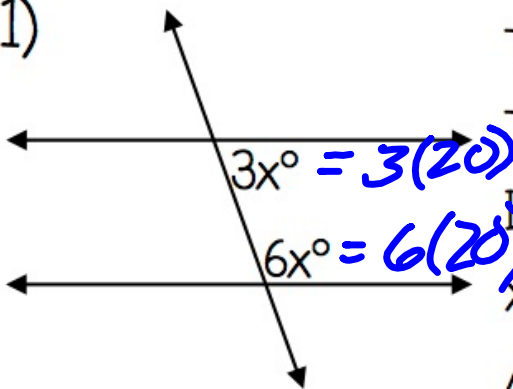
These angles are
Congruent

so... $x =$ 142

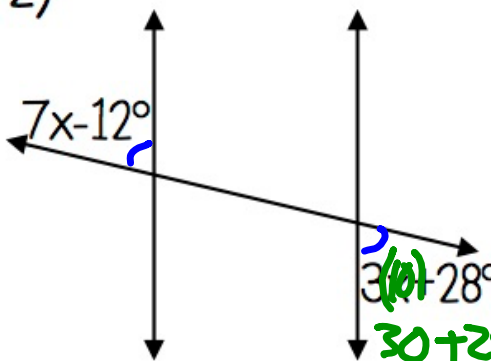
$$\frac{9x}{9} = \frac{180}{9}$$

$$x = 20$$

1)

Type of angle pair Same Side intThese angles are Supp.Equation $3x + 6x = 180$ $x =$ 20Angle Measurements = $60^\circ + 120^\circ$

2)

Type of angle pair Alt. Ext.These angles are CongruentEquation $7x - 12 = 3x + 28$

$$x = \frac{40}{4} = 10$$

Angle Measurements = 58° & 58°

$$\frac{49^\circ}{7} = \frac{7x}{7}$$

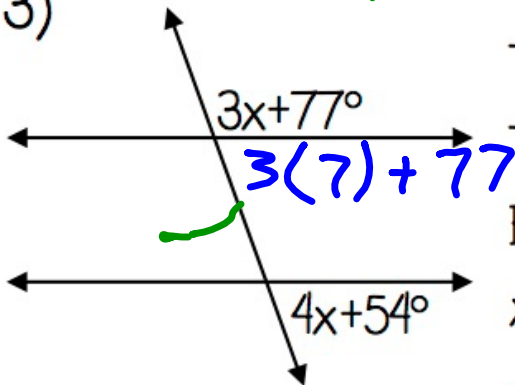
$$7 = x$$

$$7 = x$$

$$180 = (3x + 77) + (4x + 54)$$

$$180 = 7x + 131$$

3)



Type of angle pair Same Side ext.

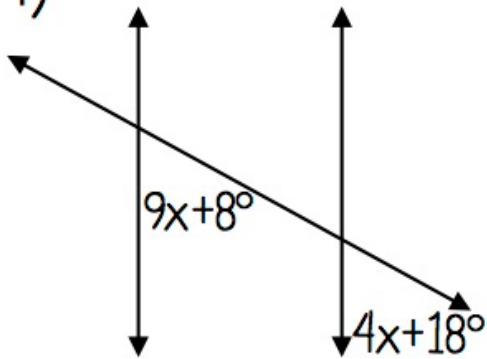
These angles are Supp.

Equation _____

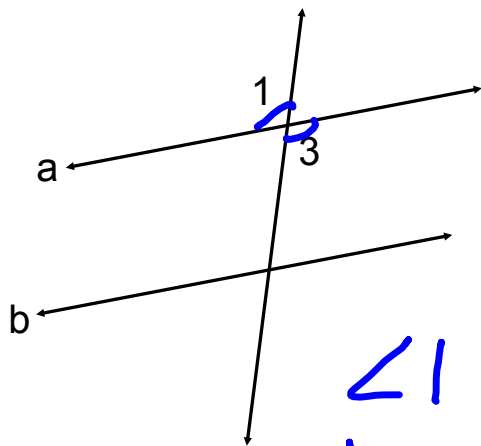
x = 7

Angle Measurements = 82° + 98°

4)

Type of angle pair correspondingThese angles are congruentEquation $9x + 8 = 4x + 18$ $x =$ 2Angle Measurements = 26, 26

Prove $\angle 1$ is congruent to $\angle 3$.

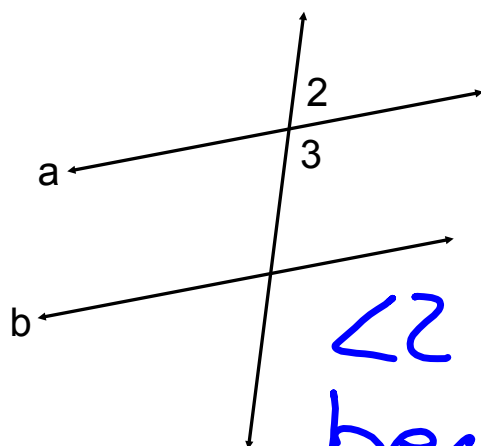


Statement	Reason
1. $a \parallel b$	1.
2.	2.

$$\angle 1 \cong \angle 3$$

because
 $\angle 1$ + $\angle 3$ are
 Vertical

Prove $\angle 2$ is supplementary to $\angle 3$.

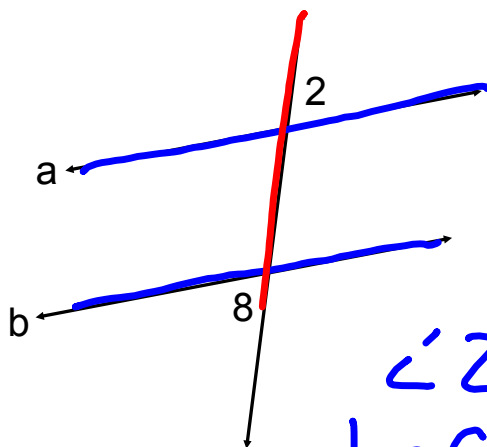


Statement	Reason
1. $a \parallel b$	1.
2.	2.

$$\angle 2 + \angle 3 = 180$$

because
 $\angle 2$ + $\angle 3$ are
 a linear pair.

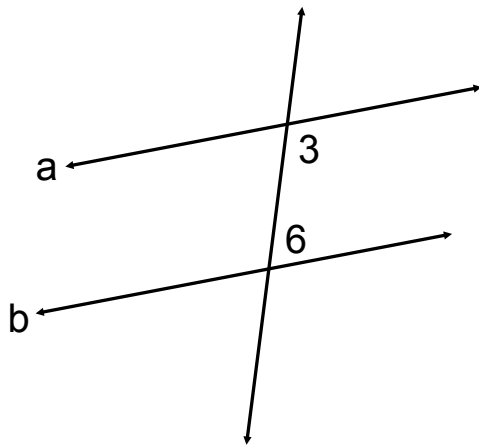
Prove $\angle 2$ is congruent to $\angle 8$.



Statement	Reason
1. $a \parallel b$	1.
2.	2.

$\angle 2 \cong \angle 8$
 because
 $\angle 2$ & $\angle 8$ are
 Alt. Ext.

Prove $\angle 3$ is supplementary to $\angle 6$.



Statement	Reason
1. $a \parallel b$	1.
2.	2.