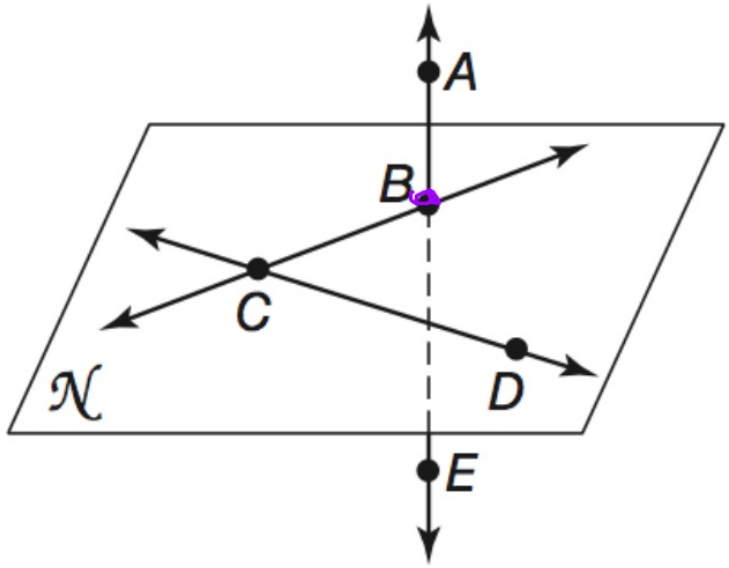
Q1

9-Weeks Test Review



Name the intersection of plane $\mathcal{N}$ and line $\overleftrightarrow{AE}$.

B

Name the intersection of $\overleftrightarrow{BC}$ and $\overleftrightarrow{DC}$.

C

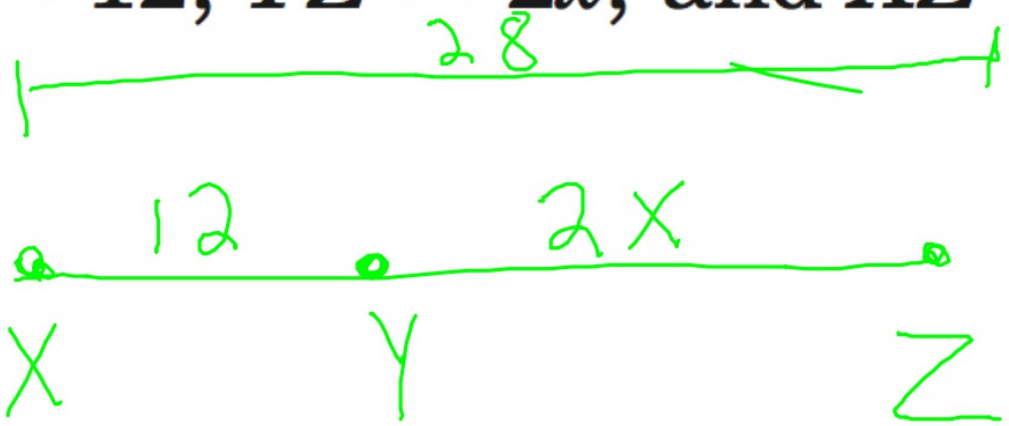
Name two points coplanar with point C.

B + D

Draw

Find the value of x and YZ if Y is between X and Z.

$$XY = 12,\ YZ = 2x,\ \text{and}\ XZ = 28$$



$YZ = 2x$

$2(8)$

$YZ = 16$

$12 + 2x = 28$

$-12 \quad -12$

$\frac{2x}{2} = \frac{16}{2}$

$x = 8$

Find the value of x and YZ if Y is between X and Z.

$$XY = 4x,\ YZ = 3x,\ \text{and}\ XZ = 42$$

$4x + 3x = 42$

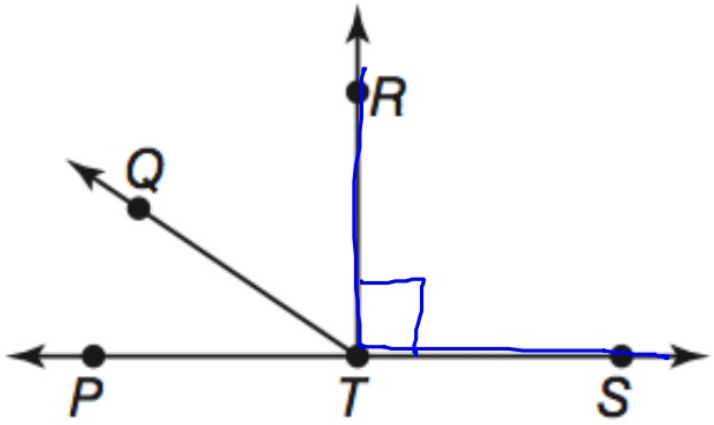
$YZ = 3x$

$3(6)$

$YZ = 18$

$\frac{7x}{7} = \frac{42}{7}$

$x = 6$



If $m\angle RTS = 8x + 18$, find the value of x so that $\overrightarrow{TR} \perp \overrightarrow{TS}$.

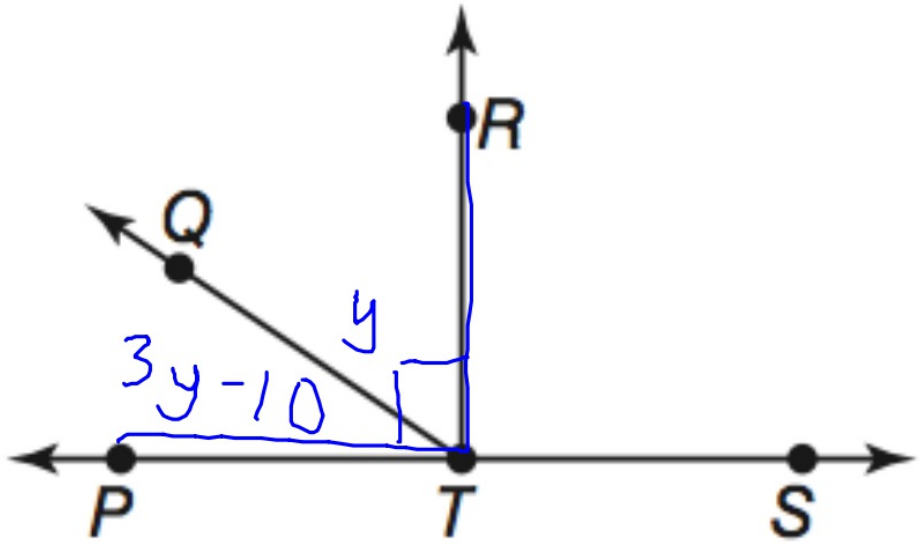
90°

$8x + 18 = 90$

$-18 \quad -18$

$\frac{8x}{8} = \frac{72}{8}$

$x = 9$



If $m\angle PTQ = 3y - 10$ and $m\angle QTR = y$, find the value of y so that $\angle PTR$ is a right angle.

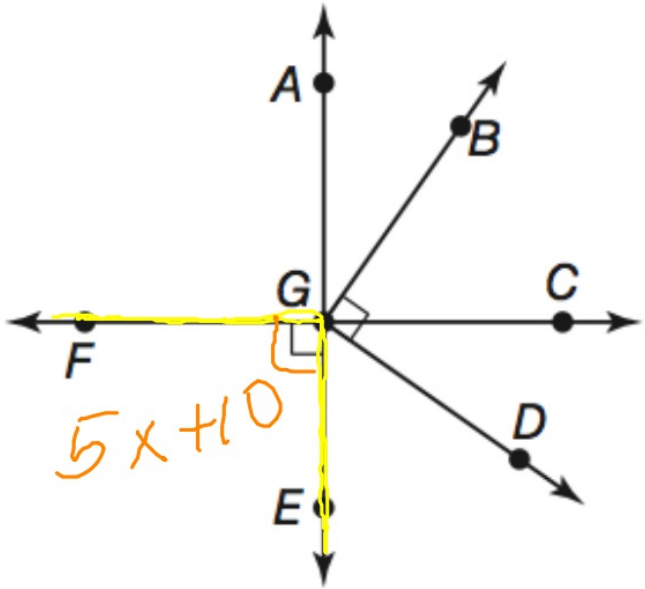
$3y - 10 + y = 90$

$4y - 10 = 90$

$+10 \quad +10$

$\frac{4y}{4} = \frac{100}{4}$

$y = 25$



If $m\angle FGE = 5x + 10$, find the value of x so that $\overleftrightarrow{FC} \perp \overleftrightarrow{AE}$.

90°

$5x + 10 = 90$

$-10 \quad -10$

$\frac{5x}{5} = \frac{80}{5}$

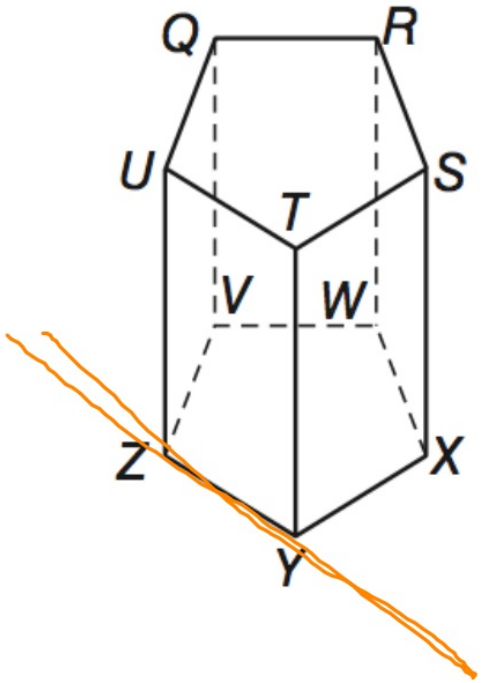
$x = 16$

Name a segment that is skew to $\overline{YZ}$.

$\overleftrightarrow{QV}$ $\overleftrightarrow{RS}$

$\overleftrightarrow{RW}$ $\overleftrightarrow{QR}$

$\overleftrightarrow{XS}$



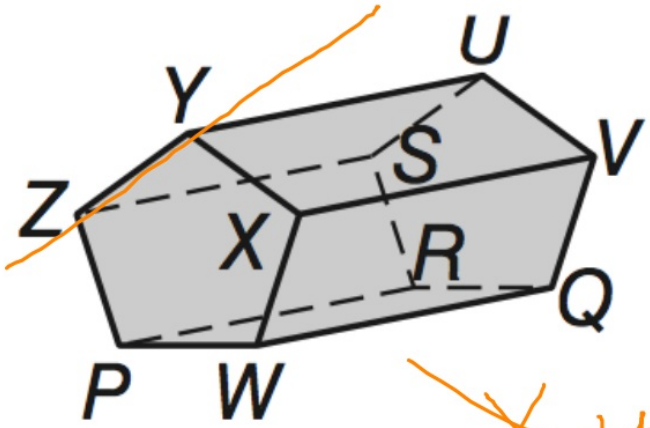
Name a segment that is skew to $\overline{YZ}$.

$\overline{UV}$

$\overline{QV}$

$\overline{WQ}$

$\overline{RQ}$



$\overline{XW}$

Write the converse, inverse, and contrapositive:

If $x = 7$, then $2x - 5 = 11$.

converse: if $2x-5=11$, then $x=7$

inverse: if $x \neq 7$, then $2x-5 \neq 11$

Contrapositive:

if $2x-5 \neq 11$, then $x \neq 7$

make it false

Find a counterexample:

If it ran up the tree, then it is a squirrel.

Chipmunk

Cat

raccoon

Find the slope:

A(-3, 0) B(0, 3)

x_1 y_1 x_2 y_2

$$\frac{3-0}{0-(-3)} = \frac{3}{3} = 1$$

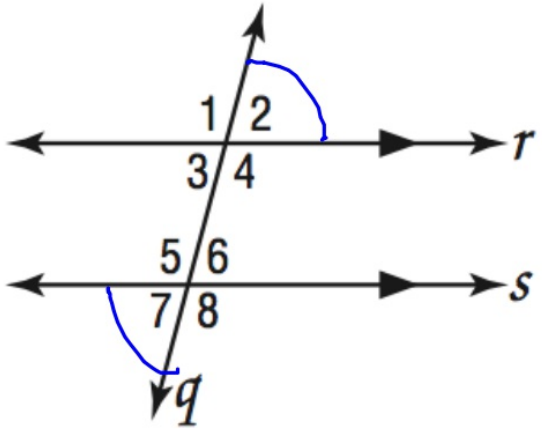
Determine the slope of the line

$$L(1, -2), N(-6, 3)$$

x_1 y_1 x_2 y_2 $-\frac{5}{7}$

$$\frac{3-(-2)}{-6-1} = \frac{5}{-7} = \frac{-5}{7}$$

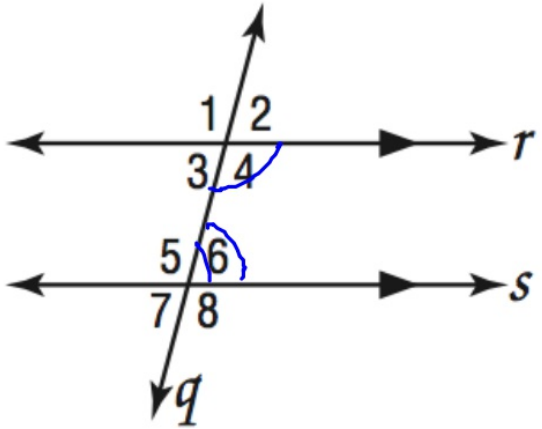
Identify the special name for the angle pair.



angles 2 and 7

alternate exterior

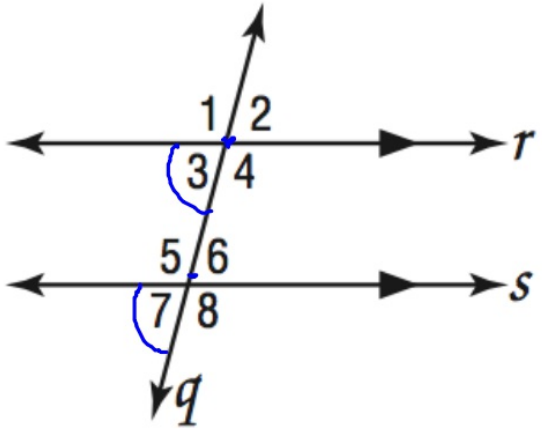
Identify the special name for the angle pair.



angles 4 and 6

consecutive interior

Identify the special name for the angle pair.



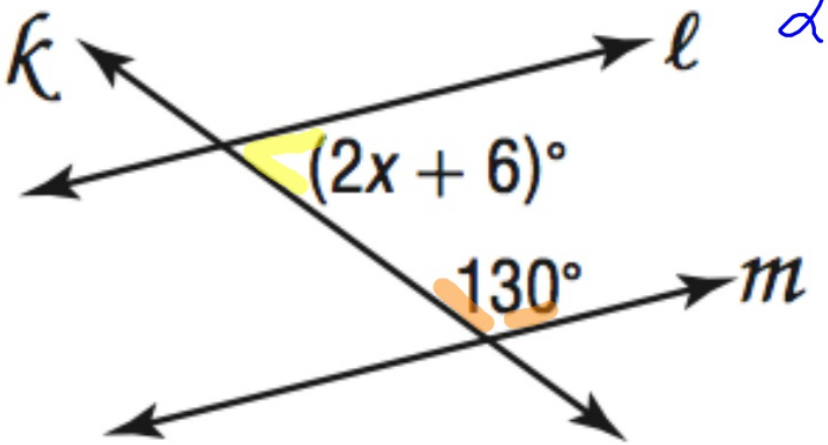
angles 3 and 7

Corresponding

Write the equation of a line with a slope -2/3 and a y-intercept of 10.

$$y = -\frac{2}{3}x + 10$$

Find x so that $\ell \parallel m$.



$2x+6+130=180$

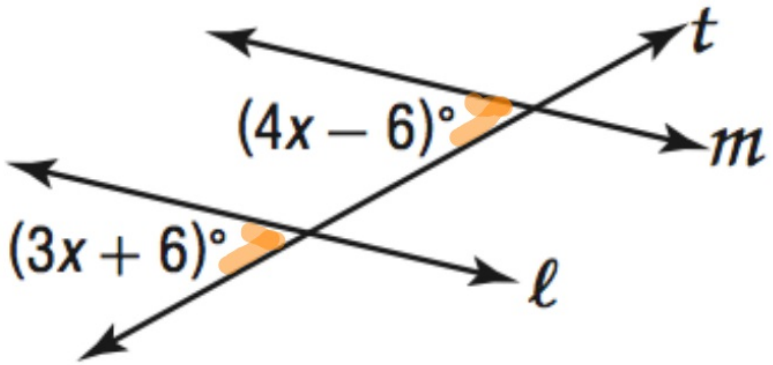
$2x+136=180$

$-136 \quad -136$

$\frac{2x}{2} = \frac{44}{2}$

$x = 22$

Find x so that $\ell \parallel m$.



$4x - 6 = 3x + 6$

$-3x \quad -3x$

$x = 12$

If it is a fish then it lives in the water.

Identify the hypothesis & the conclusion.

H: it is a fish

C: it lives in the water

Write an equation of the line.

$y - y_1 = m(x - x_1)$

slope = 4, passes through (6, 2)

m

x_1, y_1

$y - 2 = 4(x - 6)$ (point-slope form)

$y - 2 = 4x - 24$

$+2 \qquad +2$

$y = 4x - 22$ slope intercept form

What is the slope of the line perpendicular to

$$y = -\frac{4}{3}x - 12$$

m

⊥ m is 3/4