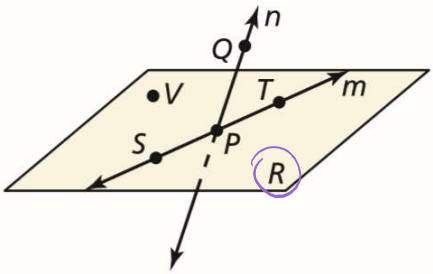
Test Review!

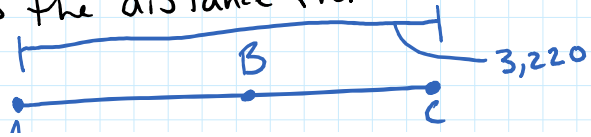


- Give two names for the plane.
- Name a line that is not on the plane.
- Name three rays.
- Name 2 points on the plane.

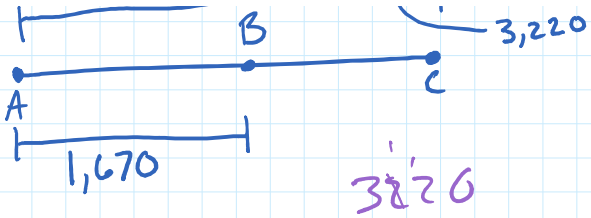
1. plane R, SPV
2. m $\overleftrightarrow{QP}$ ∴
3. $\overrightarrow{TS}$ $\overrightarrow{ST}$ $\overrightarrow{PQ}$
4. S, V

(47)

Point B lies between Point A and C.
the distance from A to C is 3,220 miles.
the distance from A to B is 1,670 miles.
what is the distance from B to C?



$AC = AB + BC$
$-AB \quad -AB$



$$\begin{array}{r} 3220 \\ -\ 1670 \\ \hline 1550 \end{array}$$

$-AB \quad -AB$

$AC - AB = BC$

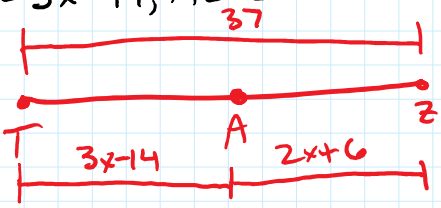
$3220 - 1670 = BC$

$\boxed{1550 = BC}$

(17)

Point A is between Points T and Z on $\overline{TZ}$.

$TZ = 37$, $TA = 3x - 14$, $AZ = 2x + 6$. Solve for x then for TA.



$TZ = TA + AZ$

$37 = (3x - 14) + (2x + 6)$

$37 = 5x - 8$

$+8 \quad +8$

$\frac{45}{5} = \frac{5x}{5}$

$\boxed{9 = x}$

$TA = 3x - 14 \; ; \; x = 9$

$3 \cdot 9 - 14$

$27 - 14$

$\boxed{TA = 13}$

(18)

The end points of $\overline{LC}$ are, $L(8, 21)$, $C(16, 14)$. (x_1, y_1, x_2, y_2)

Find the coordinates of the mid point, M. (x, y)

$x_m = \frac{x_1 + x_2}{2}$ $\quad y_m = \frac{y_1 + y_2}{2}$ $\quad M_{(x,y)} = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$

$\frac{8 + 16}{2}$ $\quad \frac{21 + 14}{2}$

$\frac{24}{2}$ $\quad y_m = \frac{35}{2}$

$x_m = 12$

$\boxed{M\left(12, \frac{35}{2}\right)}$

$(12, 17.5)$

$x_m = 12$

(12, 17.5)

(1?)

The midpoint, M, and one end point of $\overline{NT}$ are given. Find the missing end point. (x, y)

M(3,4), N(-1,-1)

$x_m = \frac{x_1 + x_2}{2}$ $\quad y_m = \frac{y_1 + y_2}{2}$

$2(3) = \left(\frac{-1 + x_2}{2}\right) \cdot 2$ $\quad 2(4) = \left(\frac{-1 + y_2}{2}\right) 2$

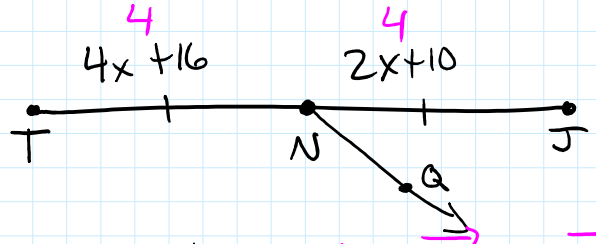
$6 = -1 + x_2$ $\quad 8 = -1 + y_2$

$+1 \quad +1$ $\quad +1 \quad +1$

$7 = x_2$ $\quad 9 = y_2$

T(7,9)

(1?)



Name the bisector: N $\quad \overrightarrow{NQ}$ $\quad \overline{NQ}$ one only

Find TJ: 8

TJ = 8

$4x + 16$; $x = 3$

$4(-3) + 16$

$-12 + 16$

4

$4x + 16 = 2x + 10$

$-2x \quad -2x$

$2x + 16 = 10$

$-16 \quad -16$

$\frac{2x}{2} = \frac{-6}{2}$

$x = -3$

(1?)

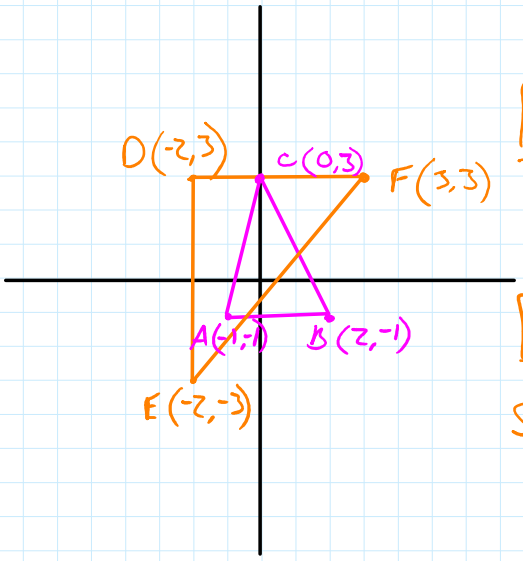
Plot the coordinate points below:

A(-1,-1), B(2,-1), C(0,3)

D(-2,3), E(-2,-3), F(3,3)

Find the area of $\triangle ABC$ and $\triangle DEF$.

Find the perimeter, round your answer to the nearest tenth.



$A_{\triangle DEF} = \frac{1}{2}bh$

$\frac{1}{2} \cdot 5 \cdot 6$

$A_{\triangle DEF} = 15$

$P_{\triangle DEF} = S_1 + S_2 + S_3$

$\approx 5 + 6 + 7.8$

$P_{\triangle DEF} \approx 18.8$

$S_3 = EF = \sqrt{(-2+3)^2 + (-3+3)^2}$

$\sqrt{(-5)^2 + (-6)^2}$

$\sqrt{25 + 36}$

$S_3 = \sqrt{61} \approx 7.8$

$A_{\triangle ABC} = \frac{1}{2}bh$

$= \frac{1}{2} \cdot 3 \cdot 4$

$A_{\triangle ABC} = 6$

$P_{\triangle ABC} = S_1 + S_2 + S_3$

$3 + 4.1 + 4.5$

$P_{\triangle ABC} \approx 11.6$

$a^2 + b^2 = c^2$

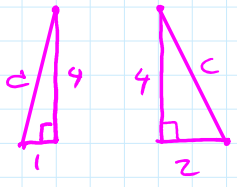
$1^2 + 4^2 = c^2$

$1 + 16 = c^2$

$17 = c^2$

$c = \sqrt{17}$

$c \approx 4.1$



$4^2 + 2^2 = c^2$

$16 + 4 = c^2$

$20 = c^2$

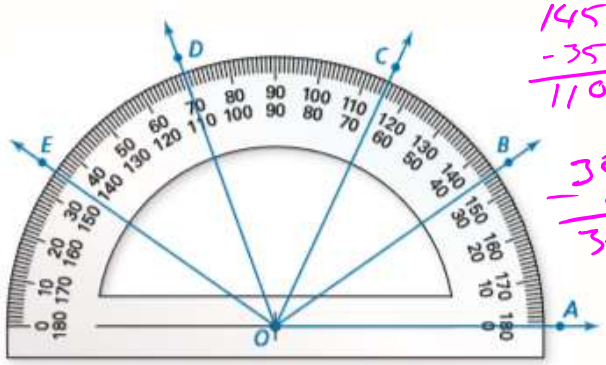
$c = \sqrt{20} \approx 4.5$

State the angle measure and classification.

$m\angle EOB = 110°$, obtuse

$m\angle AOB = 35°$, acute

$m\angle DOB = 75°$, acute



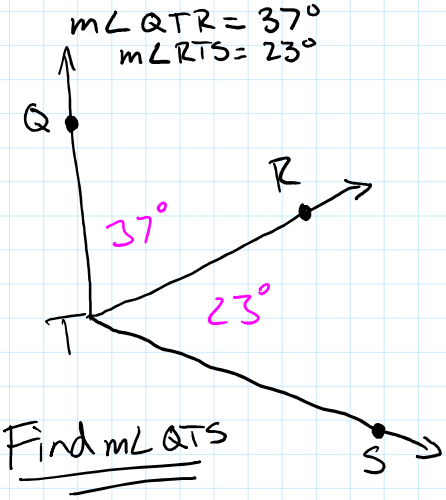
$145 - 35 = 110$

$35 - 0 = 35$

$145 - 70 = 75$

Protractor is blurry on test, be (27)

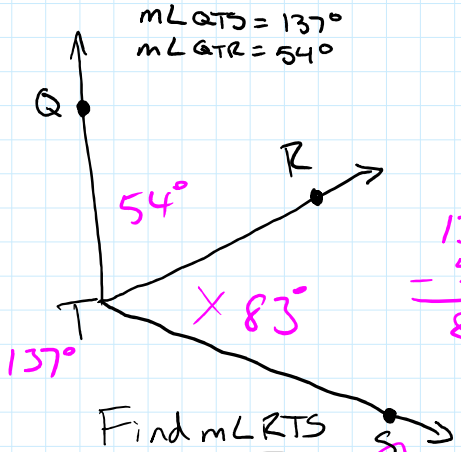
logical.



Find m∠QTS

m∠QTS = 37 + 23

m∠QTS = 60°



Find m∠RTS

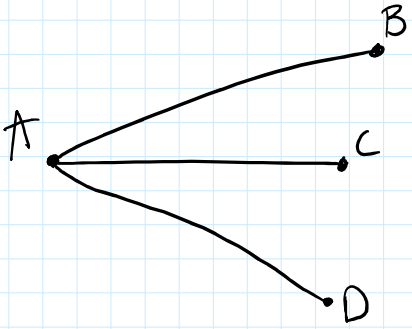
137
− 54
83

m∠RTS = 83°

∠RTS ≅

(27)

Name all 3 angles in the diagram.



∠BAC or ∠CAB

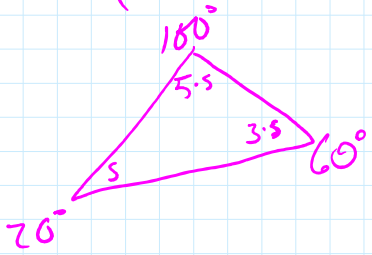
∠CAD or ∠DAC

∠BAD or ∠DAB

(17)

Your friend is drawing a triangle. The largest angle is 5 times the size of the smallest angle. The second largest angle is 3 times the smallest angle. Draw a picture and find each angle measure.

(the sum of all angles in any triangle equals 180°)

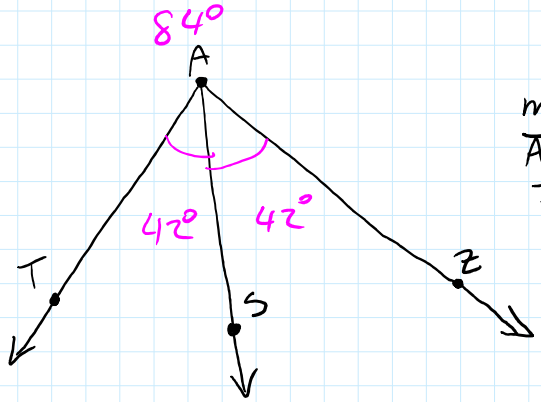


$180 = s + 3s + 5s$

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

$20 = s$

(1?)



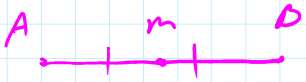
$m\angle TAZ = 84°$

$\overrightarrow{AS}$ bisects $\angle TAZ$.

Find $m\angle TAS$ and $m\angle SAZ$.

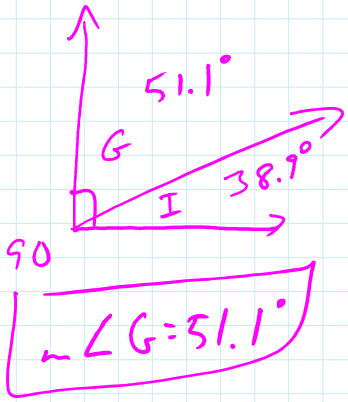
$m\angle TAS = 42°$

$m\angle SAZ = 42°$



(1?)

$\angle I$ is complimentary to $\angle G$. $m\angle I$ is 38.9°; Find $m\angle G$.

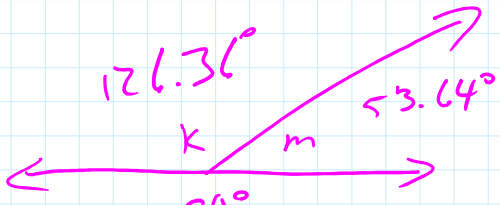


$m\angle G = 51.1°$

$$\begin{array}{r} 90.0 \\ -\ 38.9 \\ \hline 51.1 \end{array}$$

(1?)

$\angle K$ is Supplementary to $\angle M$. $m\angle M$ is 53.64, Find $m\angle K$.



$$\begin{array}{r} {\scriptstyle 7\ 9} \\ 180^{\,9\,10} \\ -\ 53.64 \\ \hline 126.36 \end{array}$$

$m\angle K = 126.36°$

(1?)

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20 Questions total
Good Luck!
