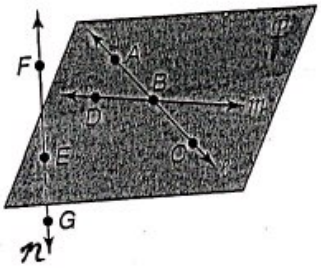
Chapter 1 Practice Test

Name _____

Period _____

Directions: For exercises 1-4, use the figure at the right.



1) What is another name for line n?

$\overleftrightarrow{FE}$ or $\overleftrightarrow{EG}$ or $\overleftrightarrow{FG}$

2) Name a point ***not*** on plane P.

G or F

3) Name the intersection of line n and plane P. E

4) Name the vertex of <ABD.

B

Know: collinear points & coplanar points

complement

supplement

5. Find the distance between the two points. Then find the midpoint of the line segment connecting the two points. $(-1, 6), (2, 8)$

$d=\sqrt{(2-{-1})^2+(8-6)^2}=\sqrt{(3)^2+(2)^2}=\sqrt{9+4}=\boxed{\sqrt{13}\approx 3.6}$

$m=\left(\frac{-1+2}{2},\frac{6+8}{2}\right)=\left(\frac{1}{2},\frac{14}{2}\right)=\boxed{\left(\frac{1}{2},7\right)}$

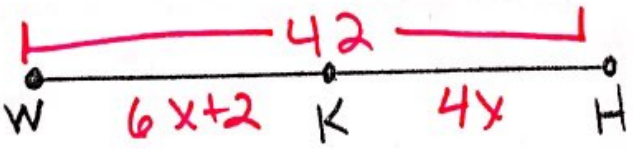
6. Find the perimeter and area of the triangle with vertices $A(-6,0)$, $B(2,0)$, and $C(-2,-3)$.

see graph paper

7. Find the area of the rectangle defined by $L(-4, 2)$, $M(3, 2)$, $N(3, -3)$, and $P(-4, -3)$. Round decimals to the nearest tenth.

see graph paper

8 Solve for x and find WK if K is between W and H and WK=6x+2, KH=4x, and WH=42.



$6x+2+4x=42$

$10x+2=42$

$-2 \quad -2$

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

$\boxed{x=4}$

WK=

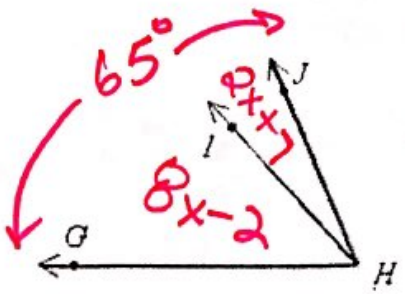
$6x+2$

$6(4)+2$

$24+2$

$\boxed{26}$

9. $m\angle JHI = (2x + 7)°$ and $m\angle GHI = (8x - 2)°$ and $m\angle JHG = 65°$. Find $m\angle JHI$ and $m\angle GHI$.



$2x+7+8x-2=65$

$10x+5=65$

$-5 \quad -5$

$\frac{10x}{10}=\frac{60}{10}$

$x=6$

m∠JHI=

$2x+7$

$2(6)+7$

$12+7$

$\boxed{19°}$

m∠GHI

65

−19

$\boxed{46°}$

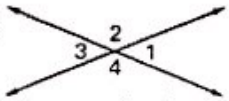
Practice Test:

10. The end points are given. Find the coordinates of the midpoint M.
P(-2, 7) and Q (10, -3) ~~See graph paper~~

$\left(\frac{10+-2}{2}, \frac{-3+7}{2}\right) = \left(\frac{8}{2}, \frac{4}{2}\right) = \boxed{(4,2)}$

11. The midpoint M and one endpoint of JK are given. Find the coordinates of the other endpoint. J(7,2) and M (1,-2). See graph paper

12.



Name a pair of vertical angles in the figure above. <2 and <4 OR <3 and <1

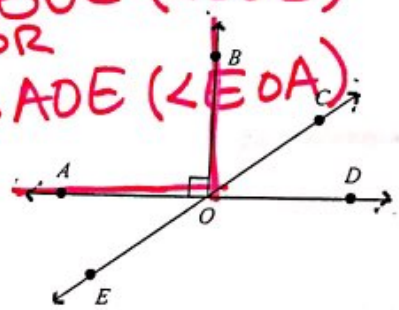
If $m\angle 2 = 4x-10$ and $m\angle 4 = -3x+130$ find x and all angle measures.

$4x-10 = -3x+130$
$+3x+10 \quad +3x \quad +10$
$\frac{7x}{7} = \frac{140}{7}$ $\boxed{x=20}$

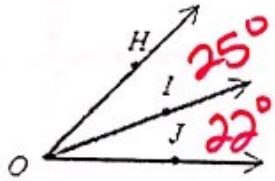
$m\angle 2 = 4(20)-10 = 70°$
$m\angle 4 = 70°$
$m\angle 3 = 180-70 = 110°$
$m\angle 1 = 110°$

13. Name an angle adjacent to $\angle AOB$.

<BOC (<COB)
OR
<AOE (<EOA)

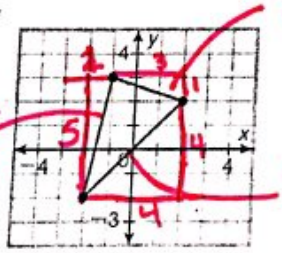


14. If $m\angle IOJ = 22°$ and $m\angle HOI = 25°$, then what is the measure of $\angle HOJ$?



$25+22 = \boxed{47°}$

15. Find the perimeter of the triangle to the nearest whole unit.



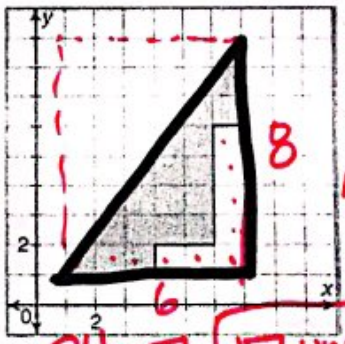
$1^2+3^2=c^2$
$10=c^2$
$\sqrt{10}$

$1^2+5^2=c^2$
$26=c^2$
$\sqrt{26}$

$4^2+4^2=c^2$
$32=c^2$
$\sqrt{32}$

$P = \sqrt{10}+\sqrt{32}+\sqrt{26}$
$= 3.16+5.66+5.1$
$= 13.9$
$\boxed{14}$

16. What is the area of the figure?



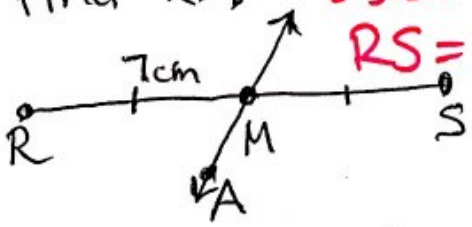
A of Δ = $48 \div 2 = 24$

$24-7 = \boxed{17 \text{ units}^2}$

17. Identify the segment bisector of $\overline{RS}$ then find RS.

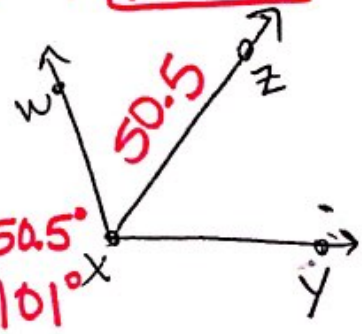
bisector is M or $\overleftrightarrow{MA}$

RS = 14cm

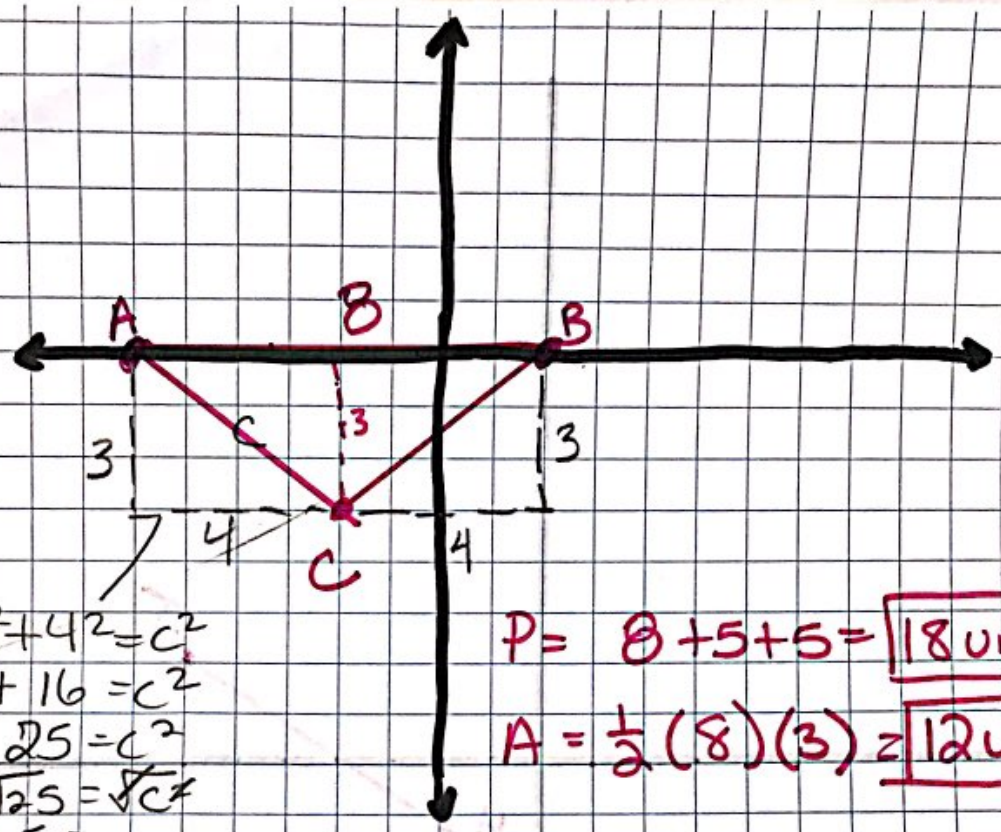


18. $\overrightarrow{XZ}$ bisects $\angle WXY$. If $m\angle WXZ = 50.5°$ find $m\angle ZXY$ and $m\angle WXY$.

$m\angle ZXY = 50.5°$
$m\angle WXY = 101°$



6)

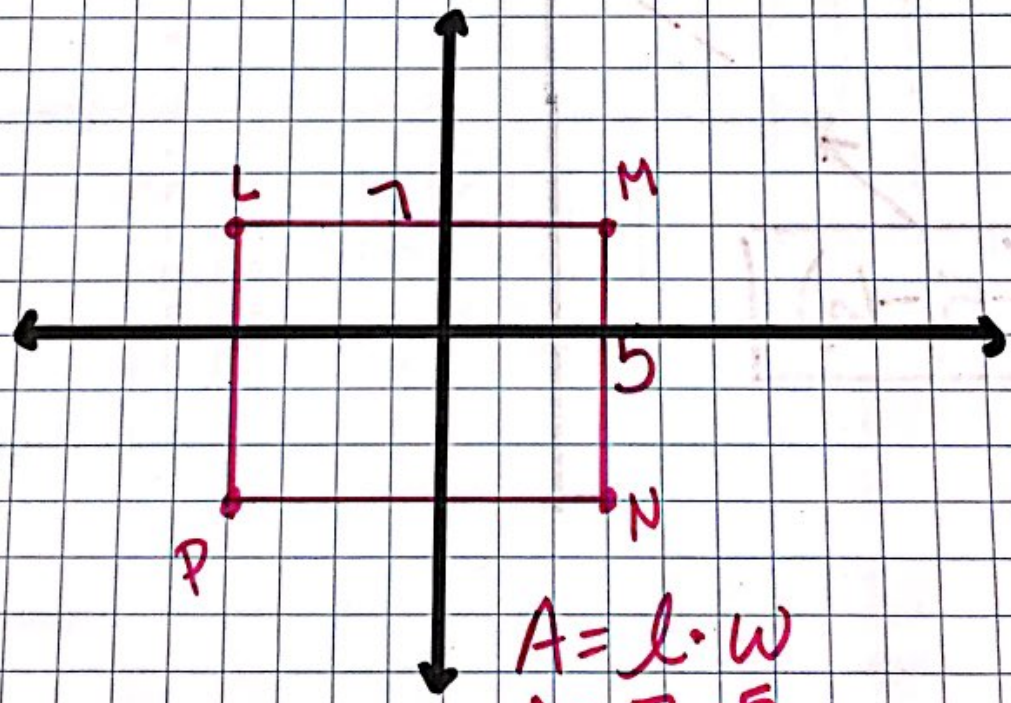


$3^2+4^2=c^2$
$9+16=c^2$
$25=c^2$
$\sqrt{25}=\sqrt{c^2}$
$5=c$

$P = 8+5+5 = \boxed{18 \text{ units}}$

$A = \frac{1}{2}(8)(3) = \boxed{12 \text{ units}^2}$

7)



$A = l \cdot w$
$A = 7 \cdot 5$
$\boxed{A = 35 \text{ units}^2}$

11)