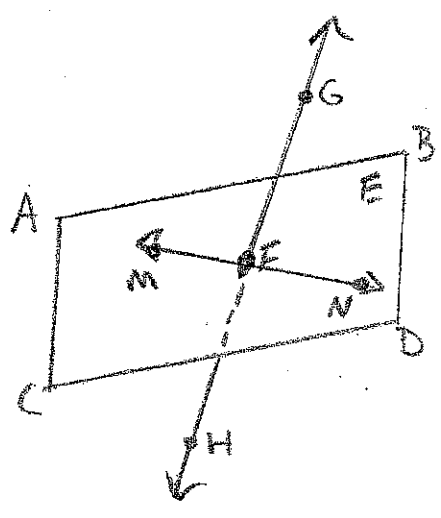


L3 Geometry Midterm Review

Chapter 1

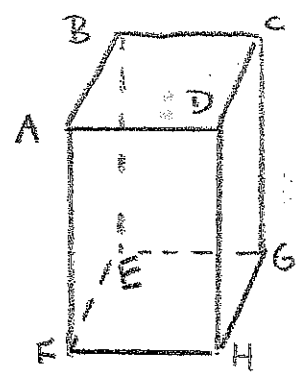
Name KEY
Date _____



① Name the plane 2 different ways.
 PLANE ABD
 PLANE CFN

② Name \overleftrightarrow{GF} 2 other ways.
 \overleftrightarrow{GH} \overleftrightarrow{FH}

③ Are point G and point N collinear?
 YES (EVEN THOUGH YOU DON'T SEE A LINE, ANY 2 POINTS ARE COLLINEAR)



④ Name 2 parallel planes
 ABCD & EFGH

⑤ Name 2 skew segments.
 \overline{AD} & \overline{CG}

⑥ Name 2 parallel segments.
 \overline{AD} & \overline{FH}

⑦ ~~SHOULD BE $7x+4$?~~

$\overline{JL} = 100$
 $4x+6 + 7x+5 = 120$
 ~~$11x+11 = 120$
 $11x = 110$
 $x = 10$~~

Find x
 Find \overline{JK}
 Find \overline{KL}

$x = 9.90$
 $\overline{JK} = 45.6$ AND $\overline{KL} = 74.4$

⑧ ~~SHOULD BE $3x+8$?~~

$\angle JOL = 86$
 Find $\angle JOK$
 $3x+5 + 5x-10 = 86$
 ~~$8x-5 = 86$
 $8x = 91$
 $x = 11.375$~~

$x = 11.375$
 $\angle JOK = 39.125$ $\angle KOL = 46.875$

⑨ ~~SHOULD BE $5x+15$?~~

Find x
 $5x+17 + 9x-3 = 180$
 $14x+14 = 180$
 $14x = 166$
 $x = 11.86$

~~$x = 11.86$~~
 $x = 11.86$
 76.3 AND 103.7
 76.3 104.1

⑩ $\angle AEK$ and $\angle KEJ$ are supplementary. $\angle AEK = 9x - 4$.
 $\angle KEJ = 17x$.
 Find x

$$26x - 4 = 180$$

$$26x = 184$$

$$x = 7.08$$

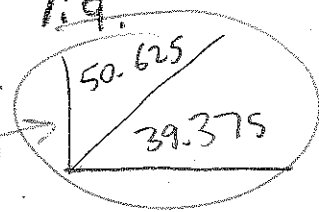
~~26x - 4 = 180~~
~~26x = 184~~
~~x = 7.08~~
 ⑩

⑪ 2 complimentary angles are in a ratio of 7:9.
 Find the 2 angles



$$16x = 90$$

$$x = 5.625$$



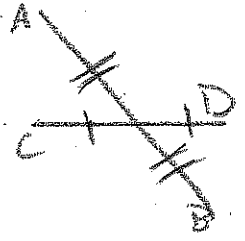
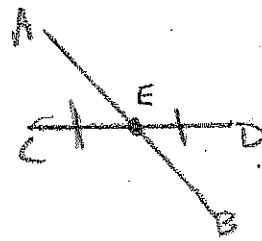
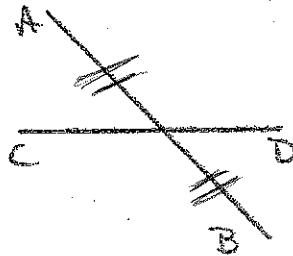
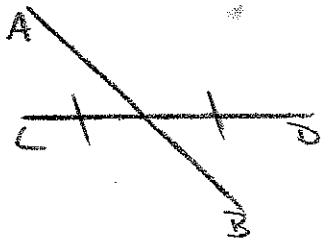
⑫ Mark each diagram based upon the info

\overline{AB} bisects \overline{CD}

\overline{CD} bisects \overline{AB}

E is the midpoint of \overline{CD}

\overline{AB} and \overline{CD} bisect each other



⑬ Find the midpoint of $(3, 7)$ $(10, 21)$

$$\left(\frac{13}{2}, \frac{28}{2} \right)$$

⑭ Find the distance between $(7, 3)$ $(-5, 10)$

DIAGONAL

$$\sqrt{12^2 + 7^2}$$

$$144 + 49$$

$$\sqrt{193} \approx 13.9$$

⑮ Segment \overline{EF} has a midpoint of $(5, -8)$.
 If E is $(5, -15)$, find point F . (Hint: Draw it)



$$5 = \frac{5+x}{2}$$

$$10 = 5+x$$

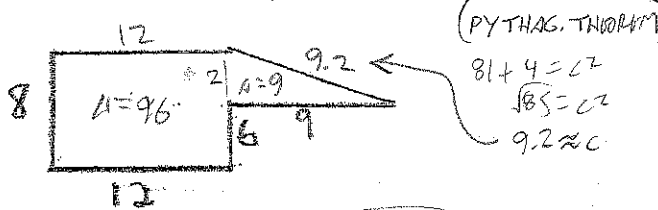
$$5 = x$$

$$-8 = \frac{-15+y}{2}$$

$$-16 = -15+y$$

$$-1 = y$$

⑯ Find the Area + Perimeter of the composite shape.



(PYTHAG. THEOREM)

$$8^2 + 4^2 = c^2$$

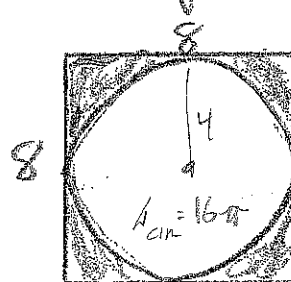
$$85 = c^2$$

$$9.2 \approx c$$

$$A = 105 \text{ u}^2$$

$$P = 56.2 \text{ u}$$

⑰ Find the area of the shaded region



$$A_{\text{sq}} = 64$$

$$A_{\text{cir}} = 16\pi$$

$$A = 64 - 16\pi \text{ u}^2$$

$$\approx 13.7 \text{ u}^2$$