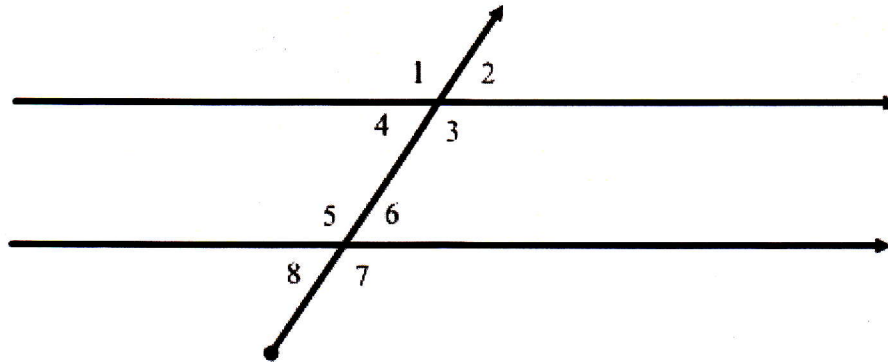


REVIEW SHEET #2

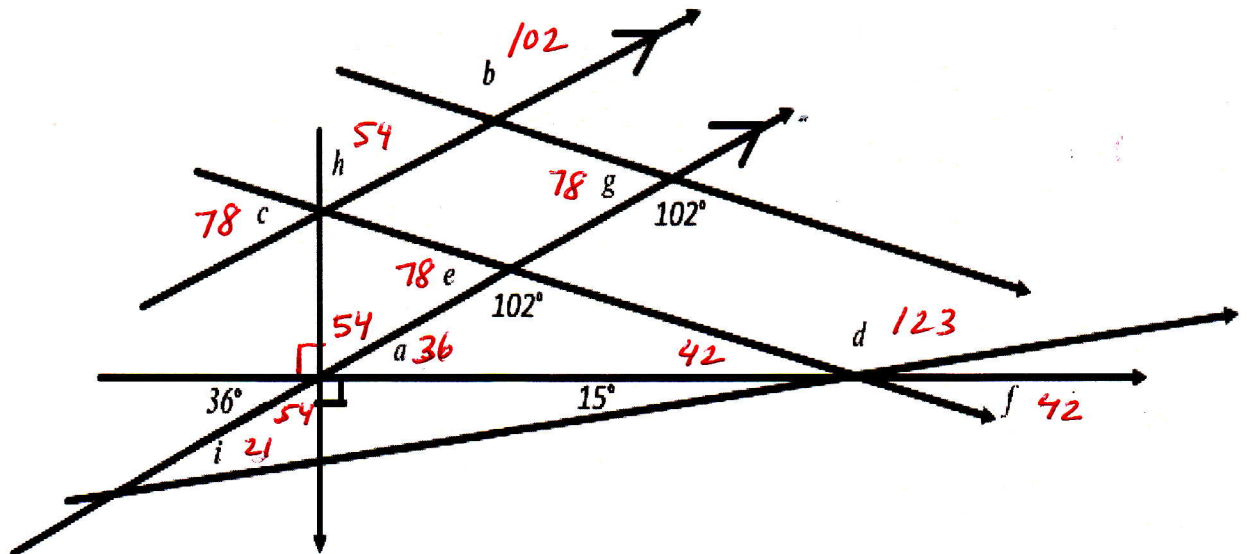
Parallel Lines

1. Answer the following questions using the diagram below.



- a. In terms of parallel lines, how would you name $\angle 4$ and $\angle 8$? Corresponding angles
- b. What do we call the line that crosses the other two lines? transversal
- c. If $\angle 6$ is congruent to $\angle 4$, then what can you conclude about the lines and what is your justification?
They are congruent because they are
alternate interior angles
- d. Name all of the angles that are congruent to $\angle 7$. $\angle 1, \angle 3, \angle 5$
- e. If $m\angle 6 = 42^\circ$, how much is $m\angle 3$? 138°
Why? Same-side interior angles are supplementary
- f. If the $m\angle 6 = 70^\circ$, how much is $m\angle 1$? 110°
- g. If the $m\angle 5 = 102^\circ$, how much is $m\angle 2$? 78°

2. Base your answers on the diagram below.



$\angle a = 36^\circ$

$\angle b = 102^\circ$

$\angle C = 78^\circ$

$$\angle d = 123^\circ$$

$\angle e = 78^\circ$

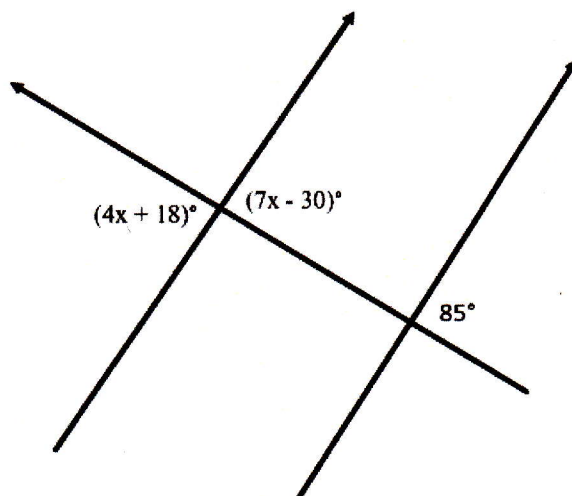
$\angle f = 42^\circ$

$\angle \text{eg} = 78^\circ$

$\angle h = 54^\circ$

$\angle i = 21^\circ$

3. Solve for x . Determine if the lines are parallel and justify your answer.



$$\begin{array}{r} 4x + 18 = 7x - 30 \\ -4x + 30 \quad -4x + 30 \\ \hline \end{array}$$

$$48 = 3x$$

$$16 = x$$

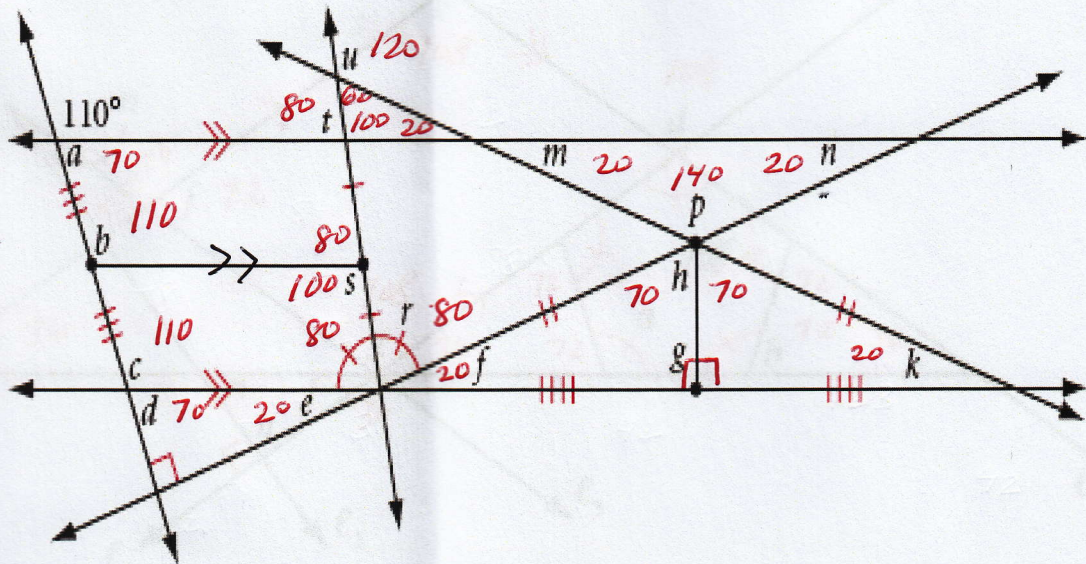
$$4(16) + 18 =$$

$$64 + 18 = 82$$

$82 \neq 85$

Therefore the lines are not parallel.

17. Calculate the measure of each lettered angle. (h)



$$a = 70$$

$$b = 110$$

$c = 110$

$$d = 70$$

$$e = 20$$

$$f = 20$$

$$gg = 90$$

$h = 70$

$$k = 20$$

$$m = 20$$

$n = 20$

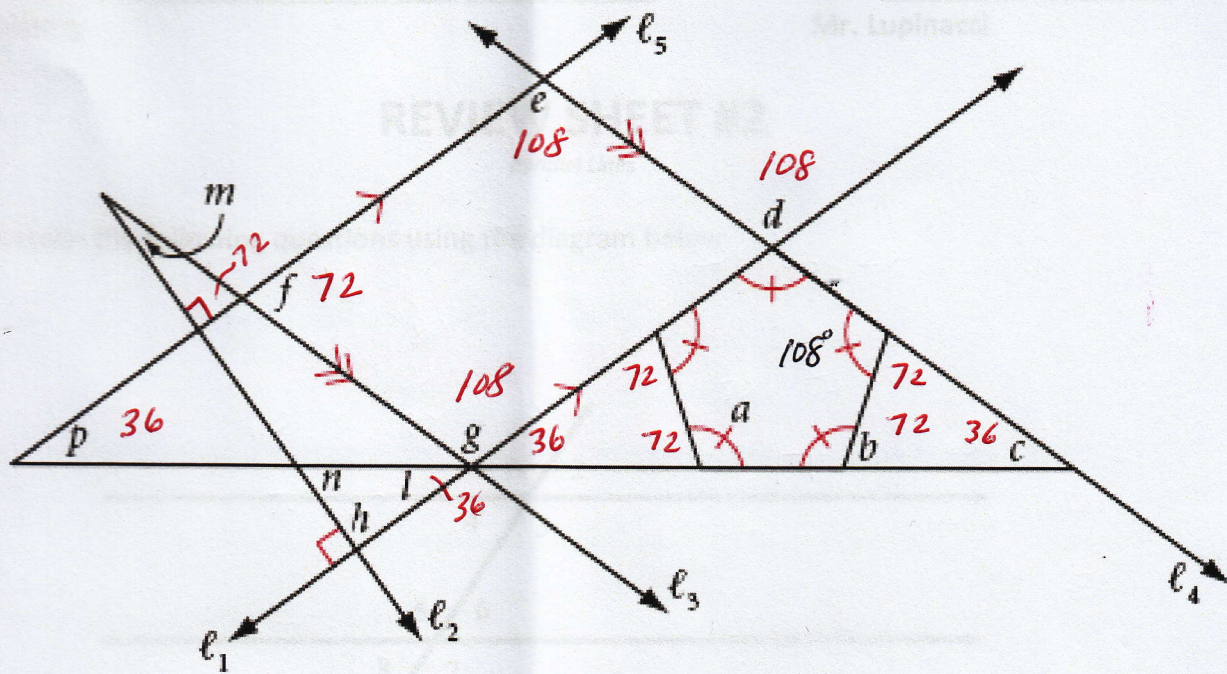
$p = 140$

$r = 80$

$$s = 100$$

t = 80

$$u = 120$$



$$a = 108$$

$$b = 72$$

$$c = 36$$

$$d = 108$$

$$e = 108$$

$$f = 72$$

$$g = 108$$

$$h = 90$$

$$l = 36$$

$$m = 18$$

$$n = 54$$

$$p = 36$$