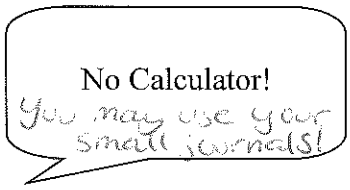
Name_____ Period_____ Date_____

UNIT 3 TEST REVIEW

☆ **Remember: All work must be shown neatly and clearly to receive credit. Don't forget to check!**

_____**1)** Solve: $3x^2 + 16x - 12 = 0$



For each line, use the given information to:

a) Write an equation of the line in point-slope form.

b) Write an equation of the line in slope-intercept form.

_____**2a)** The line with slope -1/3 that contains the point (-6, 3)

_____**2b)**

_____**3a)** The line through the points (-2, 4) and (-4, 5)

_____**3b)**

_____**4a)** The line perpendicular to $y = -\frac{1}{2}x + 4$ that contains the point (4, 3)

_____**4b)**

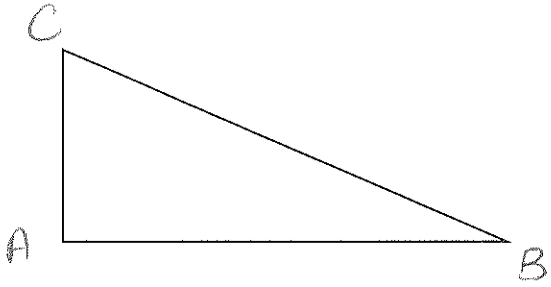
_____**5a)** The perpendicular bisector of the segment with endpoints (3, -2) and (-7, -4)

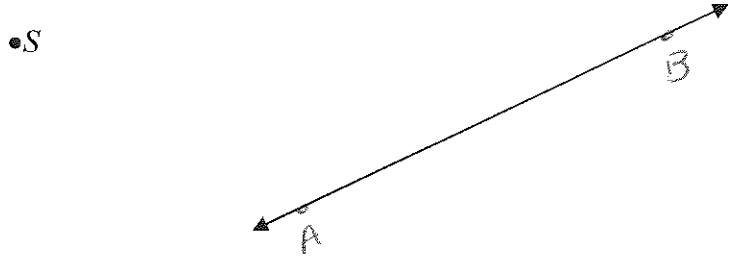
_____**5b)**

_____**6)** Write the equation of the line perpendicular to y = 5 and containing (-2, 5).

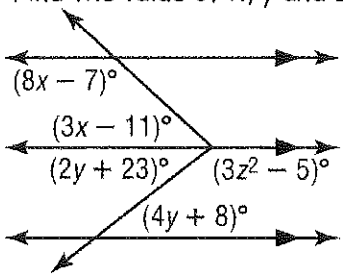
_____**7)** Write the equation of the line parallel to y = -2 and containing (4, 5).

8) Draw lines representing the distance between Line AB and Point S and Line m and point S



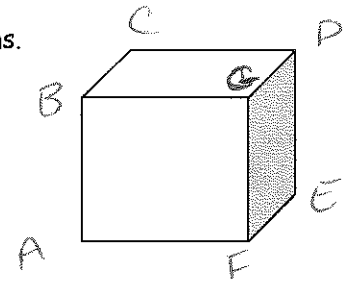


9) Find the value of x, y and z.



x=_____ y=_____ z=_____

10) Using the figure at the right to answer each of the following questions.

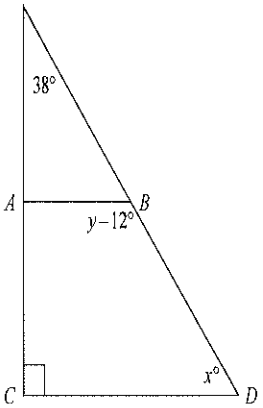


a) A line skew to $\overleftrightarrow{AB}$ that contains point C?

b) A point that is not coplanar to C, D and F

c) A plane perpendicular to Plane CDF

11) If $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$, find x and y in the picture.

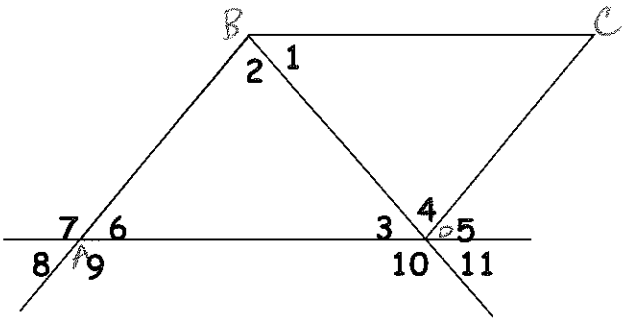


12) Identify each pair of angles

_____ a) $\angle 2$ and $\angle 4$

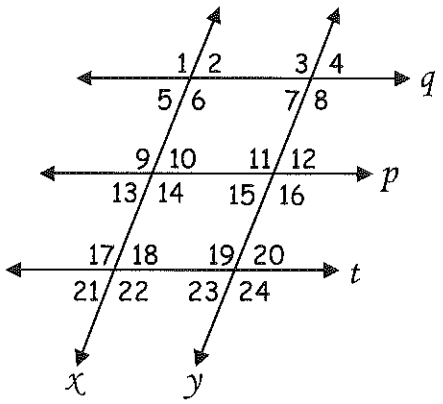
_____ b) $\angle 3$ and $\angle 11$

_____ c) $\angle 2$ and $\angle 6$



13) In #12, if $\angle 6 \cong \angle 5$, then which lines have to be parallel? What other angle relationships would we then know about?

Given the following information, determine which lines are parallel and name the transversal. State the postulate or theorem that justifies your answer.



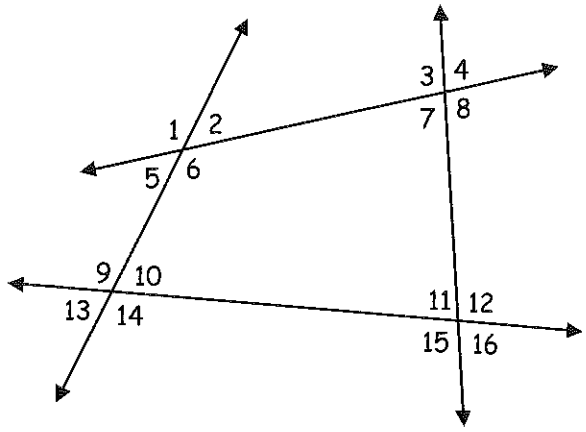
_____, _____, _____ **14)** $\angle 1 \cong \angle 3$

_____, _____, _____ **15)** $\angle 10 \cong \angle 5$

_____, _____, _____ **16)** $\angle 3 \cong \angle 24$

_____, _____, _____ **17)** $m\angle 14 + m\angle 15 = 180°$

Identify the type of angle pair created by each pair of angles. If the two angles don't create any angle pair you've learned this year, write "NONE".



_____ **18)** $\angle 5$ & $\angle 4$

_____ **19)** $\angle 15$ & $\angle 7$

_____ **20)** $\angle 8$ & $\angle 12$

_____ **21)** $\angle 4$ & $\angle 11$

_____ **22)** $\angle 2$ & $\angle 7$

_____ **23)** $\angle 11$ & $\angle 16$

_____ **24)** $\angle 2$ & $\angle 6$

Given the sets of parallel lines, find the value of the measure of each numbered angle.

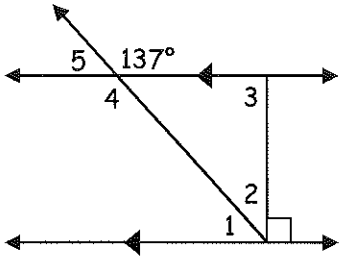
25) $m\angle 1$ = _____

$m\angle 2$ = _____

$m\angle 3$ = _____

$m\angle 4$ = _____

$m\angle 5$ = _____



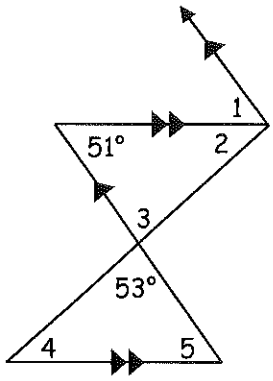
26) $m\angle 1$ = _____

$m\angle 2$ = _____

$m\angle 3$ = _____

$m\angle 4$ = _____

$m\angle 5$ = _____



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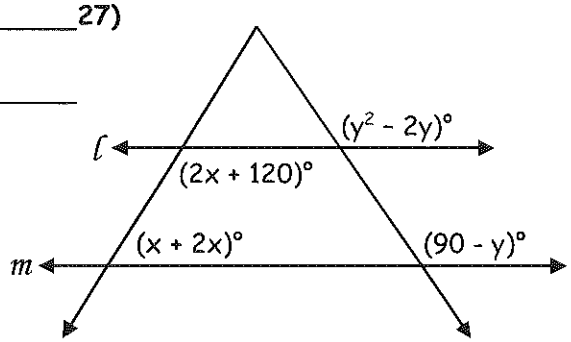
Solve for x and y so that $\ell \parallel m$.

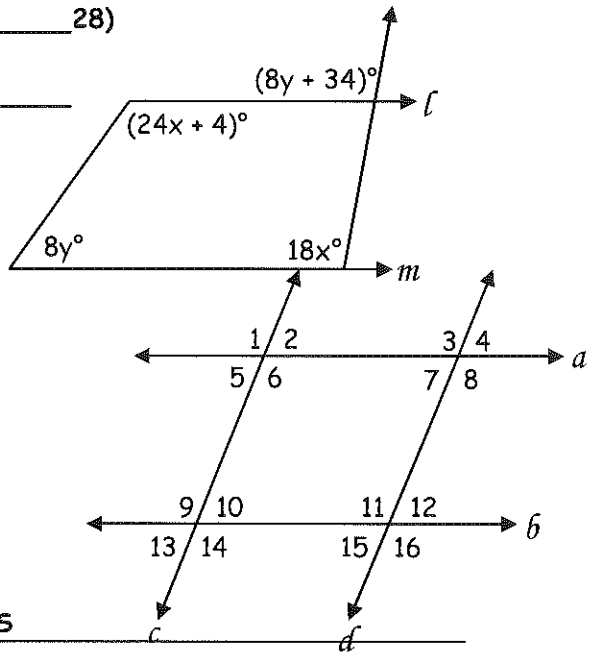
x = _____ 27)

y = _____



x = _____ 28)

y = _____



PROOFS:

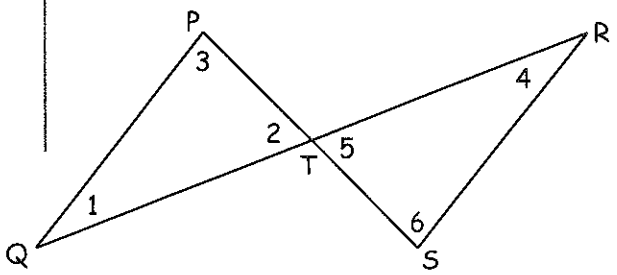
29) Given: $c \parallel d$ and $\angle 10 \cong \angle 4$

Prove: $a \parallel b$

STATEMENTS	REASONS

30) Given: $\overline{PQ} \parallel \overline{RS}$ and $\angle 1 \cong \angle 2$

Prove: $\angle 4 \cong \angle 5$



STATEMENTS	REASONS

☆ DON'T FORGET TO STUDY ALL YOUR NOTES, HOMEWORKS & QUIZZES! ☆