

Vertical Angles and Linear Pair Puzzles

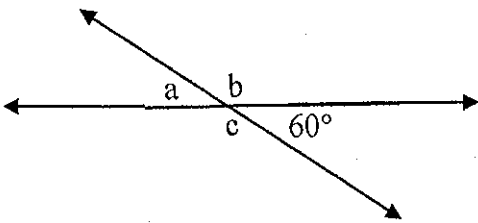
Name _____

Calculate the missing angles. Show your work by writing in the angles as you find them.

Block _____ Date _____

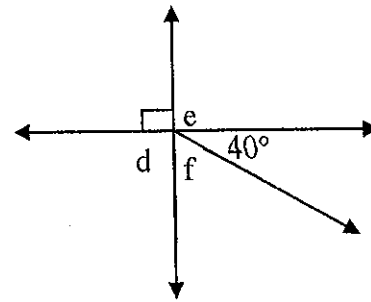
1.

$a = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$ $c = \underline{\hspace{1cm}}$



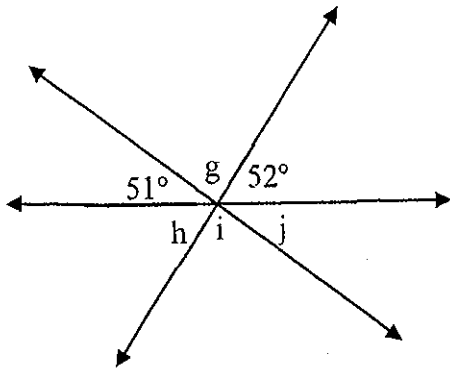
2.

$d = \underline{\hspace{1cm}}$ $e = \underline{\hspace{1cm}}$ $f = \underline{\hspace{1cm}}$



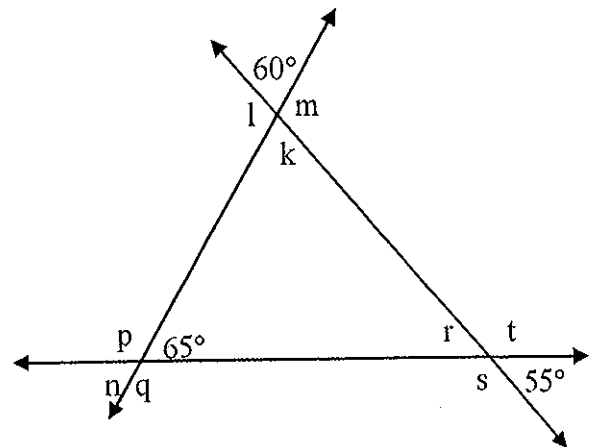
3.

$g = \underline{\hspace{1cm}}$ $h = \underline{\hspace{1cm}}$
 $i = \underline{\hspace{1cm}}$ $j = \underline{\hspace{1cm}}$



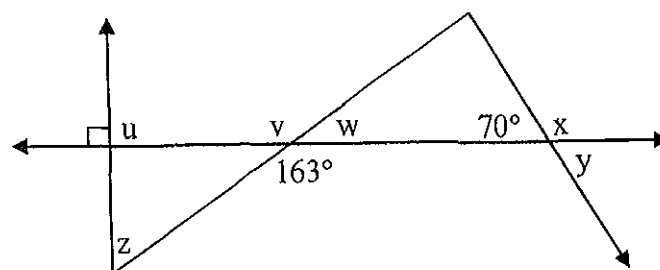
4.

$k = \underline{\hspace{1cm}}$ $l = \underline{\hspace{1cm}}$ $m = \underline{\hspace{1cm}}$
 $n = \underline{\hspace{1cm}}$ $p = \underline{\hspace{1cm}}$ $q = \underline{\hspace{1cm}}$
 $r = \underline{\hspace{1cm}}$ $s = \underline{\hspace{1cm}}$ $t = \underline{\hspace{1cm}}$



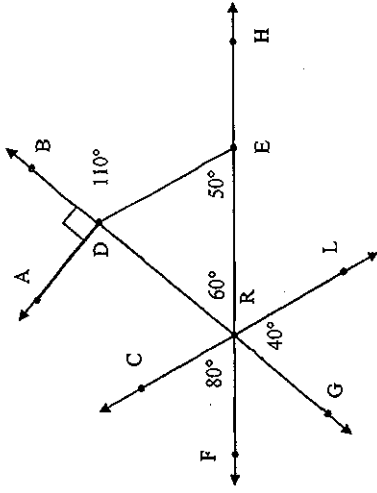
5.

$u = \underline{\hspace{1cm}}$ $v = \underline{\hspace{1cm}}$ $w = \underline{\hspace{1cm}}$ $x = \underline{\hspace{1cm}}$ $y = \underline{\hspace{1cm}}$ $z = \underline{\hspace{1cm}}$



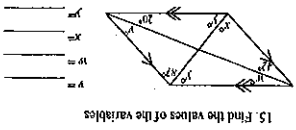
Who is Mud-Wrestling Champ?

Find the answer in one of the boxes at the bottom of the page. Write the letter of the exercise in that box.



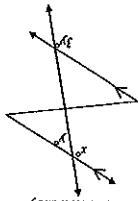
- A $m\angle FRG =$ _____ Z $m\angle FRL =$ _____
- R $m\angle ERL =$ _____ D $m\angle FRD =$ _____
- O $m\angle CRD =$ _____ E $m\angle CAG =$ _____
- I $m\angle HED =$ _____ Z $m\angle ADE =$ _____
- F $m\angle BDA =$ _____ O $m\angle ADB + m\angle BDE =$ _____
- O $m\angle RDE =$ _____ W $m\angle DRE + m\angle RED =$ _____

110°	130°	160°	60°	80°	120°	70°	90°	40°	200°	100°	140°



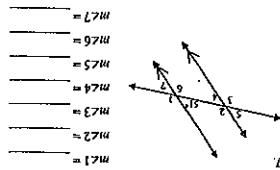
15. Find the values of the variables

x = _____
y = _____

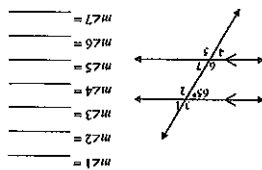


14. Solve for x and y

x = _____
y = _____



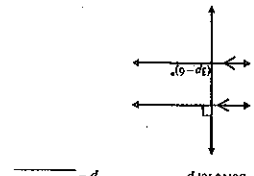
m1 = _____
m2 = _____
m3 = _____
m4 = _____
m5 = _____
m6 = _____
m7 = _____



m1 = _____
m2 = _____
m3 = _____
m4 = _____
m5 = _____
m6 = _____
m7 = _____

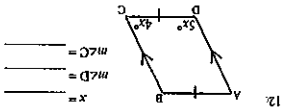
6

Find the measure of all the numbered angles.



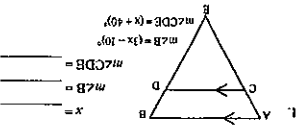
13. Solve for p

p = _____



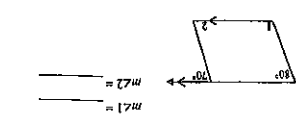
12.

x = _____
m1 = _____
m2 = _____
m3 = _____
m4 = _____
m5 = _____



11. Find the value of x. Then find the measure of each labeled angle. Be sure to show work!

m1 = _____
m2 = _____
m3 = _____
m4 = _____
m5 = _____
m6 = _____
m7 = _____
m8 = _____
m9 = _____



9.

m1 = _____
m2 = _____
m3 = _____
m4 = _____
m5 = _____
m6 = _____
m7 = _____
m8 = _____
m9 = _____

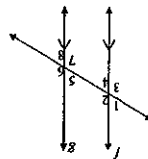
1. Identify four pairs of congruent angles (exclude vertical angle pairs)

2. Identify two pairs of supplementary angles (exclude linear pairs)

3. If $m\angle 1 = 70^\circ$, what is $m\angle 8$?

4. If $m\angle 4 = 70^\circ$ and $m\angle 7 = 2x$, what is the value of x ?

5. How are they different? How are they alike? Identify Interior Angle Theorem and Alternate Exterior Angle Theorem alike?



Use the diagram below for exercises 1-4

Name: _____ Date: _____ Block: _____