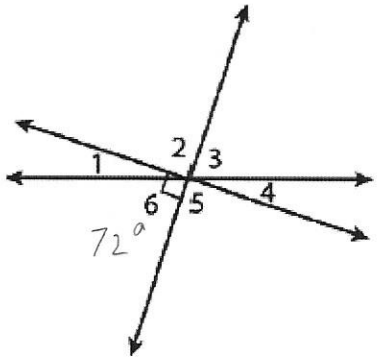
KEY

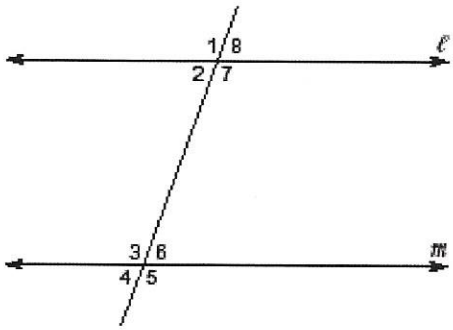
Module 4 Review

In the diagram, $m\angle 6 = 72°$.



1) Find $m\angle 1$. = 90-72=18
2) Find $m\angle 2$. =90
3) Find $m\angle 3$. = 72
4) Find $m\angle 4$. = 18
5) Find $m\angle 5$. = 90
6) Describe the relationship between $\angle 1$ and $\angle 4$. vertical angles
7) Describe the relationship between $\angle 1$ and $\angle 6$. complementary

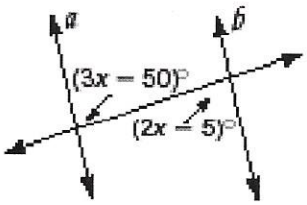
For Problems 8-12, assume $l \| m$. State the name of the special relationship, and then find the missing angle.



8) If $m\angle 7 = 100°$, find $m\angle 3$. = 100 Alt. int
9) If $m\angle 7 = 95°$, find $m\angle 6$. = 85 Same Side Int
10) If $m\angle 1 = 120°$, find $m\angle 5$. = 120 Alt. Ext.
11) If $m\angle 4 = 20°$, find $m\angle 2$. = 20 Corresp
12) If $m\angle 3 = 140°$, find $m\angle 5$. = 140 Vertical

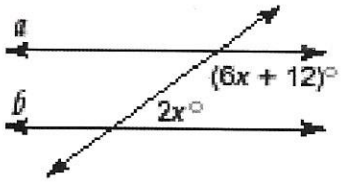
For Problems 13-14, assume $a \| b$. State the name of the special relationship, and then find x.

13)



$3x - 50 = 2x - 5$
$x = 45$
Alt. Int.

14)



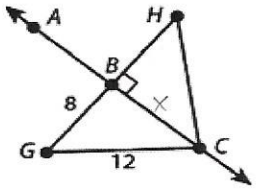
$6x + 12 + 2x = 180$
$8x + 12 = 180$
$8x = 168$
$x = 21$
Same Side Int.

For Problems 15-17, find the unknown value.

15) $GH =$ 16

16) $CH =$ 12

17) $BC =$ $\sqrt{80} = 8.9$



$8^2 + x^2 = 12^2$
$64 + x^2 = 144$
$x^2 = 80$
$x = \sqrt{80}$

18) Find the slope of the line passing through the points (-2,5) and (3,7).

$\frac{7-5}{3-(-2)} = \frac{2}{5}$

19) Write the equation (in any form) for the line in problem 18.

$y - 5 = \frac{2}{5}(x-(-2))$ or $y - 7 = \frac{2}{5}(x-3)$

20) Write the equation (in any form) of the line PARALLEL to the line $y = \frac{4}{7}x - 6$ that passes through the point (-1,3).

slope = $\frac{4}{7}$

$y - 3 = \frac{4}{7}(x-(-1))$

21) Write the equation (in any form) of the line ~~PARALLEL~~ PERPENDICULAR to the line $y = -\frac{3}{5}x + 7$ that passes through the point (4,-3).

slope = $\frac{5}{3}$

$y - (-3) = \frac{5}{3}(x-4)$