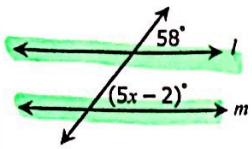
Parallel Lines, Transversals, and Algebra!

Directions: If $l \parallel m$, find the value of each missing variable(s).

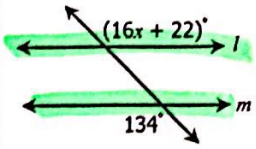
1.



$5x - 2 = 58$
$+2 \quad +2$
$\frac{5x}{5} = \frac{60}{5}$
$x = 12$

Corresp ≅

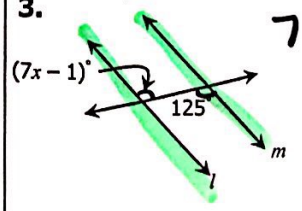
2.



$16x + 22 = 134$
$-22 \quad -22$
$\frac{16x}{16} = \frac{112}{16}$
$x = 7$

alt. ext ≅

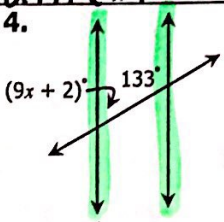
3.



$7x - 1 = 125$
$+1 \quad +1$
$\frac{7x}{7} = \frac{126}{7}$
$x = 18$

alt. int ≅

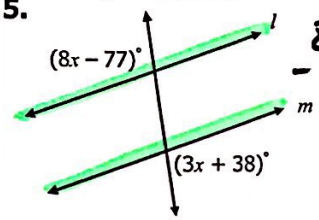
4.



$9x + 2 + 133 = 180$
$9x + 135 = 180$
$-135 \quad -135$
$\frac{9x}{9} = \frac{45}{9}$
$x = 5$

SSI = 180

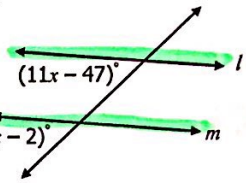
5.



$8x - 77 = 3x + 38$
$-3x \quad -3x$
$5x - 77 = 38$
$+77 \quad +77$
$\frac{5x}{5} = \frac{115}{5}$
$x = 23$

alt. ext ≅

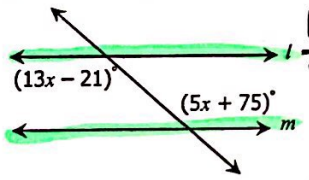
6.



$11x - 47 = 6x - 2$
$-6x \quad -6x$
$5x - 47 = -2$
$+47 \quad +47$
$\frac{5x}{5} = \frac{45}{5}$
$x = 9$

corresp ≅

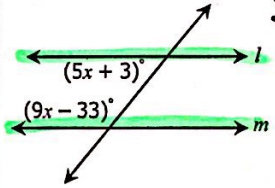
7.



$13x - 21 = 5x + 75$
$-5x \quad -5x$
$8x - 21 = 75$
$+21 \quad +21$
$\frac{8x}{8} = \frac{96}{8}$
$x = 12$

alt. int ≅

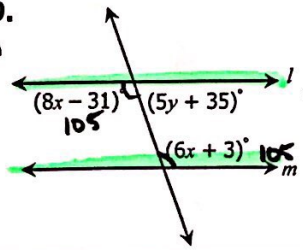
8.



$9x - 33 + 5x + 3 = 180$
$14x - 30 = 180$
$+30 \quad +30$
$\frac{14x}{14} = \frac{210}{14}$
$x = 15$

SSI = 180

9.

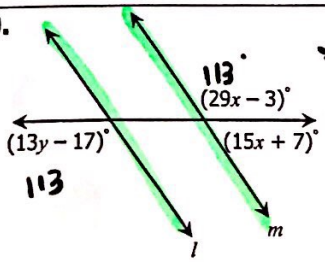


$8(17) - 31$

$8x - 31 = 6x + 3$
$-6x \quad -6x$
$2x - 31 = 3$
$+31 \quad +31$
$\frac{2x}{2} = \frac{34}{2}$
$x = 17$

$5y + 35 + 105 = 180$
$5y + 140 = 180$
$-140 \quad -140$
$\frac{5y}{5} = \frac{40}{5}$
$y = 8$

10.



$29x - 3 + 15x + 7 = 180$
$44x + 4 = 180$
$-4 \quad -4$
$44x = 176$
$x = 4$

$13y - 17 = 113$
$+17 \quad +17$
$\frac{13y}{13} = \frac{130}{13}$
$y = 10$

Scanned with CamScanner