

Parallel lines and Perpendicular lines

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Given Line	Slope	Slope of parallel line	Slope of perpendicular line	Equation of a parallel line	Equation of a perpendicular line
$y = 3x - 2$	3	3	$-1/3$	$Y = 3x + 1$	$Y = -\frac{1}{3}x + 4$
$14x + 7y = 8$	-2	-2	$1/2$	$Y = -2x + 6$	$Y = \frac{1}{2}x + 9$
$3y = x - 10$	$1/3$	$1/3$	-3	$X - 3Y = 9$	$3X + Y = 17$
$17x - 5y = 9$	$17/5$	$17/5$	$-5/17$	$17X - 5Y = 0$	$5X + 17Y = 6$
$7y + 6x = 15$	$-6/7$	$-6/7$	$7/6$	$6X + 7Y = 14$	$7X - 6Y = 4$
$x = 9$	Undefined	Undefined	0	$X = 16$	$Y = 19$
$y = -8$	0	0	Undefined	$Y = 25$	$X = 1$
$x + y = 25$	-1	-1	1	$X + Y = 94$	$X - Y = 40$
passes through (9, 2); (-3, 7)	$-5/12$	$-5/12$	$12/5$	$5X + 12Y = 4$	$12X - 5Y = 5$
Inclined at 64 degrees	2.05	2.05	-0.49	$Y = 2.05X$	$Y = -0.49X$

Find the equation of parallel lines and perpendicular lines that are perpendicular to given line with slope and point on it.

Slope point	Equation of parallel line	Equation of perpendicular line
$2/3$ (3, -6)	$2X - 3Y = 24$	$3X + 2Y = -3$
$-3/8$ (-9, 4)	$3X + 8Y = 5$	$8X - 3Y = -84$
$11/18$ (2, 15)	$11X - 18Y = -248$	$18X + 11Y = 201$
4.7 (2.74, 4.09)	$4.7X - Y = 8.79$	$X + 4.7Y = 21.96$
0.23/0.15 (-18, 25)	$23X - 15Y = -789$	$15X + 23Y = 305$
$21/-67$ (0.22, -4.6)	$21X + 67Y = -303.58$	$67X - 21Y = 111.34$
0 (-45, 24)	$Y = 24$	$X = -45$
Undefined (18.7, 22.6)	$X = 18.7$	$Y = 22.6$
$-4/9$ (18, 504)	$4X + 9Y = 4608$	$9X - 4Y = -1854$