

Select one of the options below and create a linear equation to represent the monthly bill.
When will the plans cost the same?

Explain when each plan is a better option.

Plan A \$35.99 for 180 min plus \$0.65 per min.

Plan B \$28.99 for 180 min plus \$1.45 per min.

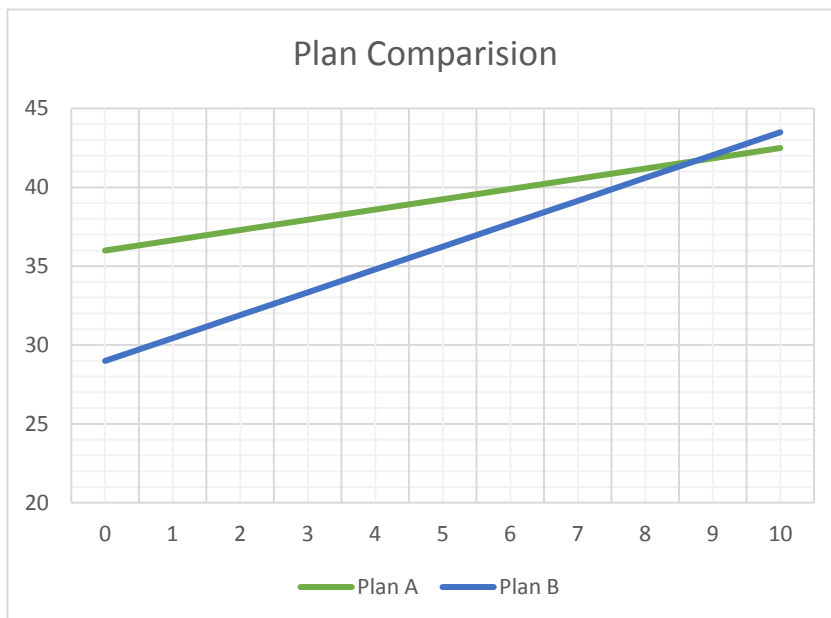
The slope-intercept form of the line: $y = mx + b$

m = the slope and b = the y-intercept

Plan A:	$m = \$0.65$ and $b = \$35.99$	Plan B:	$m = \$1.45$ and $b = \$28.99$
---------	--------------------------------	---------	--------------------------------

$y =$	$mx +$	b	Plan B:	$mx +$	b
$y =$	$.65x +$	35.99	$y =$	$1.45x +$	28.99
$y =$	0.65	35.99	$y =$	1.45	28.99
<u>Points</u>	<u>x</u>	<u>y</u>	<u>Points</u>	<u>x</u>	<u>y</u>
	0	35.99		0	28.99
	1	36.64		1	30.44
	2	37.29		2	31.89
	3	37.94		3	33.34
	4	38.59		4	34.79
	5	39.24		5	36.24
	6	39.89		6	37.69
	7	40.54		7	39.14
	8	41.19		8	40.59
	9	41.84		9	42.04
	10	42.49		10	43.49

Graph



<https://www.youtube.com/watch?v=2QuyFXNOYUk>

NOTE: The plans will be the same where the lines cross.
What (x, y) point is that?