Name _____ Per **A B C D E F** Date _____

Scenario:

x = # of hours worked   *y = total $ earned*

*One of your neighbors, **Mr. Jones**, is interested in hiring you on a part-time basis to help with yard work such as raking, weeding, and shoveling in the winter. However, he **wants to pay you $10 to come to his house to work and then $8 for each hour you are working**.* $y = 8x + 10$

*A different neighbor, **Mrs. Smith**, wants to pay you $12 an hour for each hour you are working.*
$y = 12x$

Your parents are encouraging you to take Mr. Jones's offer. You are not so sure… Which offer is better? Why?
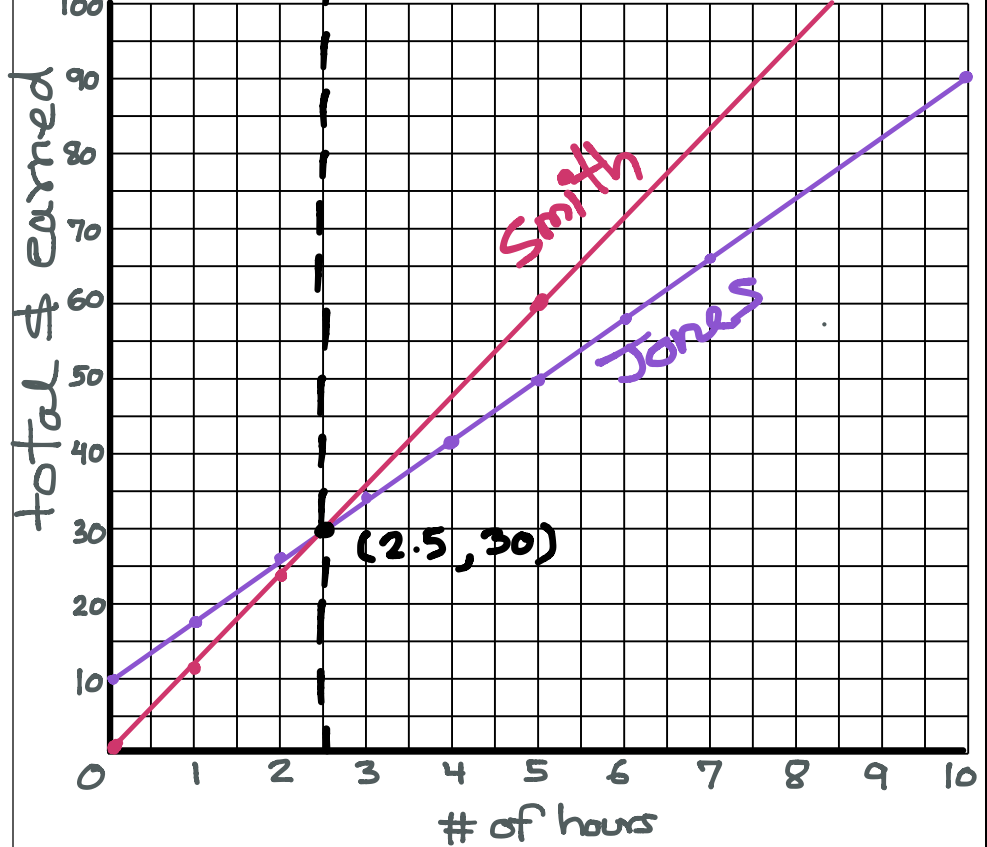
Table:

Mr. Jones

Hours	$
0	10
1	18
2	26
3	34
4	42
5	50
6	58
7	66
8	74
9	82
10	90

$y = 8x + 10$

Mrs. Smith

Hours	$
0	0
1	12
2	24
3	36
4	48
5	60
6	72
7	84
8	96
9	108
10	120

$y = 12x$

Graph:

(2.5, 30)

total $ earned

# of hours

Equation: (in slope intercept form -   y = mx + b)

Mr. Jones: $y = 8x + 10$ **Mrs. Smith:** $y = 12x$

Your parents are encouraging you to take Mr. Jones's offer. You're not so sure…Which offer is better? Why?

Only from 0-2.5 hours, Mr. Jones has a better offer

Is there a certain amount of hours you could work where the offers would be the same? 2.5 hrs.

When (which hours) would it be better to take Mr. Jones offer? From 0-2.5 hrs

When(which hours) would it be better to take Mrs. Smith's offer? More than 2.5 hrs.