Lesson 2 Assignment

Direct Variation

Work slowly and carefully. If you are having difficulty, go back and review the appropriate *Lesson*.

For full marks, show all calculations, steps, and/or explain your answers.

Total marks: 19

(1) _____ 1. Which statement is **not** true for a set of data that represents direct variation?

A. The rate of change is constant.
B. The graph passes through the ordered pair $(0, 0)$.
C. The slope varies.
D. The graph is a straight line.

(1) _____ 2. The origin is _____.

A. where the graph starts
B. the point $(0, 0)$
C. at the top of the graph
D. the label found on the y-axis

(1) _____ 3. In direct variation, the slope is always _____ the rate of change.

A. higher than
B. lower than
C. extrapolated to
D. equal to

(1) _____ 4. The equation represented by the table of values is:

x	y
0	0
15	1.5
30	3.0
45	4.5
60	6.0

A. $y = 10x$
B. $y = x$
C. $y = 15x$
D. $y = 0.1x$

(4) 5. Determine if the table of values represents direct variation. If yes, state the rate of change. If no, explain.

a.

x	y
0	1
1	2
2	3
3	4
4	5

b.

x	y
0	0
1	20
2	40
3	60
4	80

c.

x	y
0	0
11	66
22	132
33	198
44	264

d.

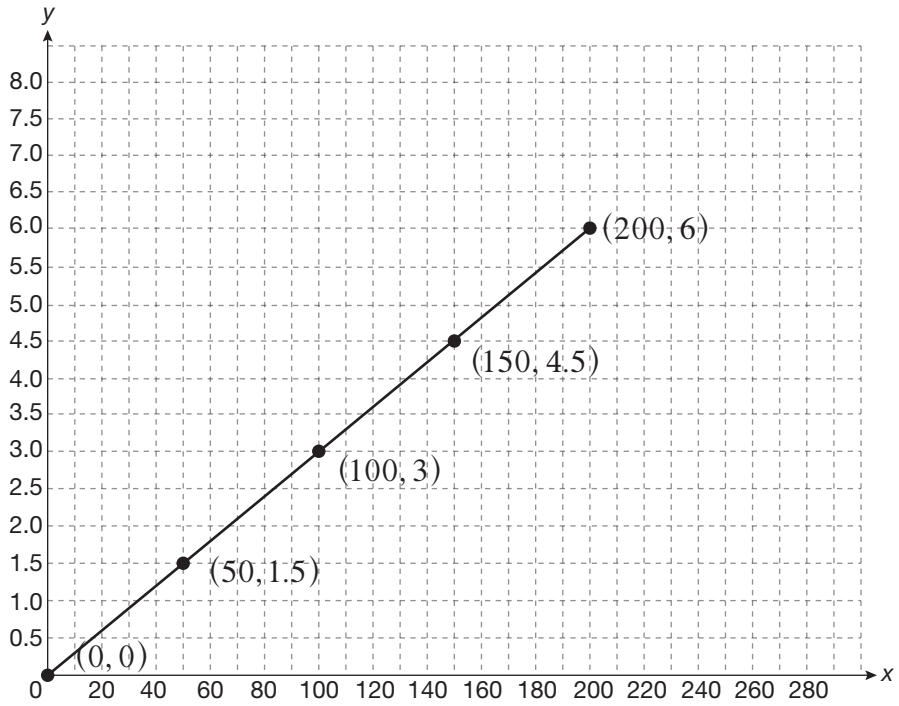
x	y
0	0
2	25
4	50
6	60
8	70

6. Determine the slope for each scenario below.

(1) a. Find the slope.

x	y
0	0
9	33.3
18	66.6
27	99.9
36	133.2

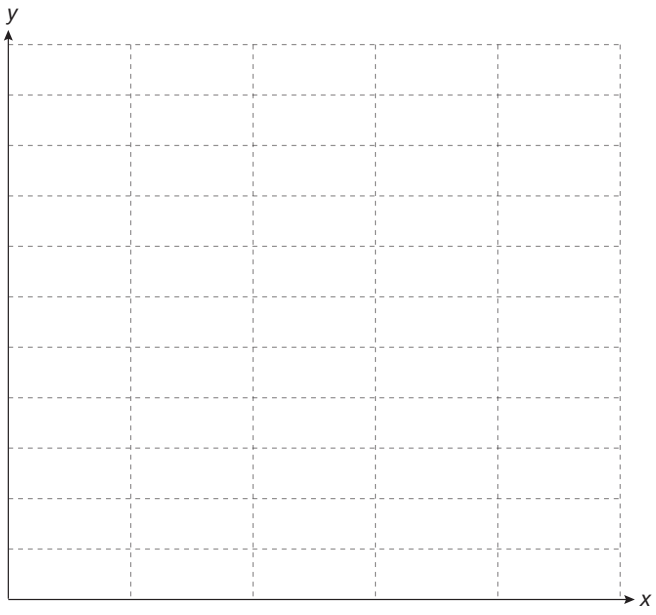
(1) b. Find the slope of the line.



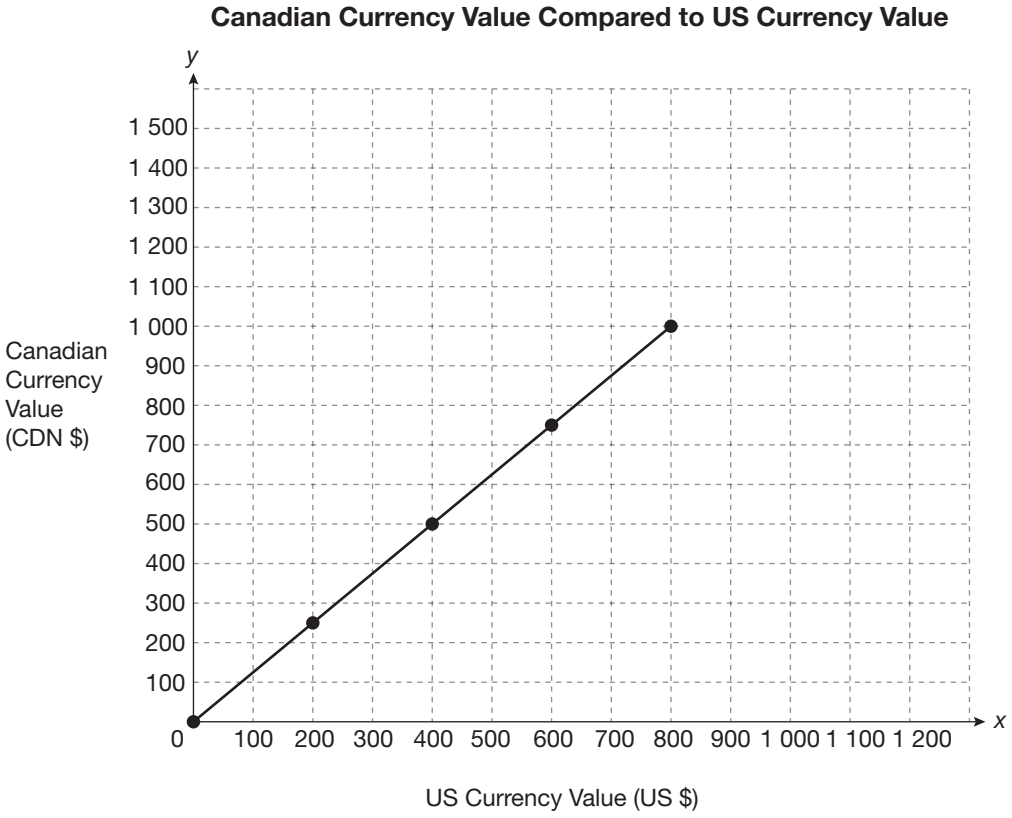
(1) c. Find the slope given the two points $A(3, 18)$ and $B(8, 48)$.

(1) 7. a. Create a table of values for the equation $y = 5x$. Use the values $x = 0, 1, 2, 3, 4$.

(1) b. Graph the equation $y = 5x$.



8. Use the graph to answer the following.



(2) a. State the equation of the line.

(2) b. Estimate the value of $\$500$ American in Canadian dollars. State which method—interpolation or extrapolation—is used to estimate the value.

(2)

c. Approximately how much is $\$1\,400$ Canadian worth in American dollars? State which method—interpolation or extrapolation—is used to estimate the value.