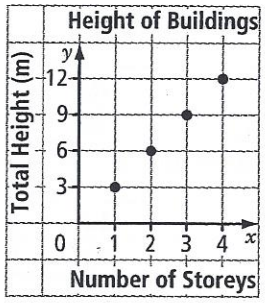
Key

Math 8: Linear Relations Final Exam Review

- **Analyzing Graphs of Linear Relations**
  a. Complete the sentences to describe the graph below.



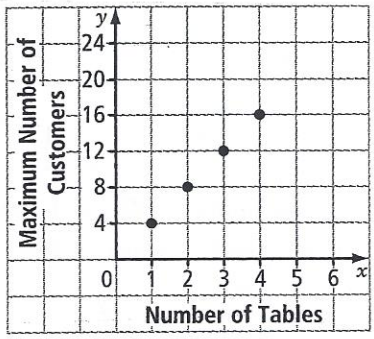
The height of a one – storey building is 3 m, a 2 - storey building is 6 m high, a three – storey building is 9 m. The points appear to line in a Straight line. The line shows a linear relation. The graph shows that to move from one point to the next, you go 1 unit horizontally, and 3 vertically.

Complete the table of values for this graph.

# Storeys	1	2	3	4	5	10
Total height	3	6	9	12	15	30

b. The graph shows the maximum number of customers based on the number of tables in a restaurant.

Number of Customers



Title the graph. Describe the pattern on the graph. Does the graph show a linear relation?

Pattern: The points lie on a straight line showing a linear relation. Every 1 unit moved horizontally 4 units are moved vertically.

Complete the table of values for the graph on the previous page.

# of tables	1	2	3	4	5	6
# customers.	4	8	12	16	20	24

- **Patterns in Tables of Values**

  a. Draw a graph using the ordered pairs in the table of values.

W	2	8	14	20
t	2	14	26	38

See Graph Paper.

  b. Is this a linear relationship? If so what is an expression for "d" in terms of "n"?

n	6	8	10	12	14
d	36	48	60	72	84

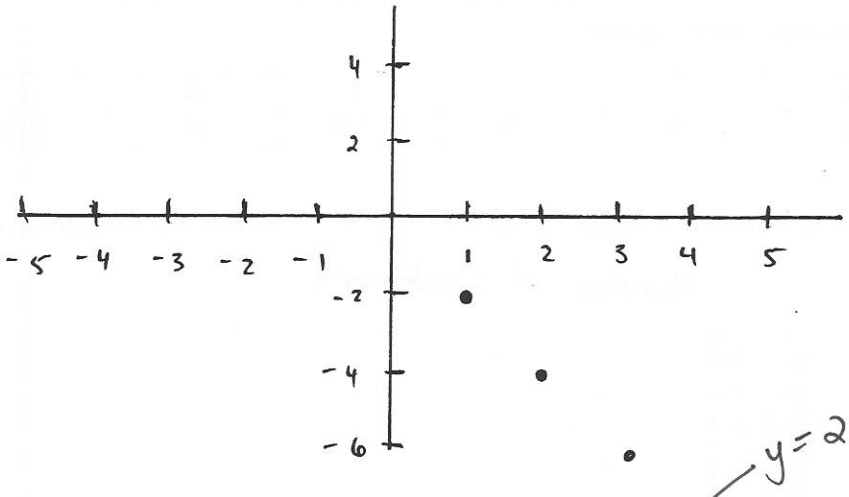
Yes it is a linear relationship. $d = 6n$

- Linear Relationship

  a. A texting plan can be represented by C = 2t, where C is the cost in cents and t is the time in minutes.

  Make a table of values. Graph the ordered pairs. Is it reasonable to have points between the ones on your graph? See Graph Paper.

  b. The graph below represents part of y = -2x.



y = 2

Use the equation to calculate the y – coordinate when x = -1. What is the value of x in (x, -4)? What are the coordinates for the point that lies on the y – axis?

x = 2

Questions to Review

Chapter 9 Get Ready

Page 337# 4 – 16

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Linear Relations Assignment

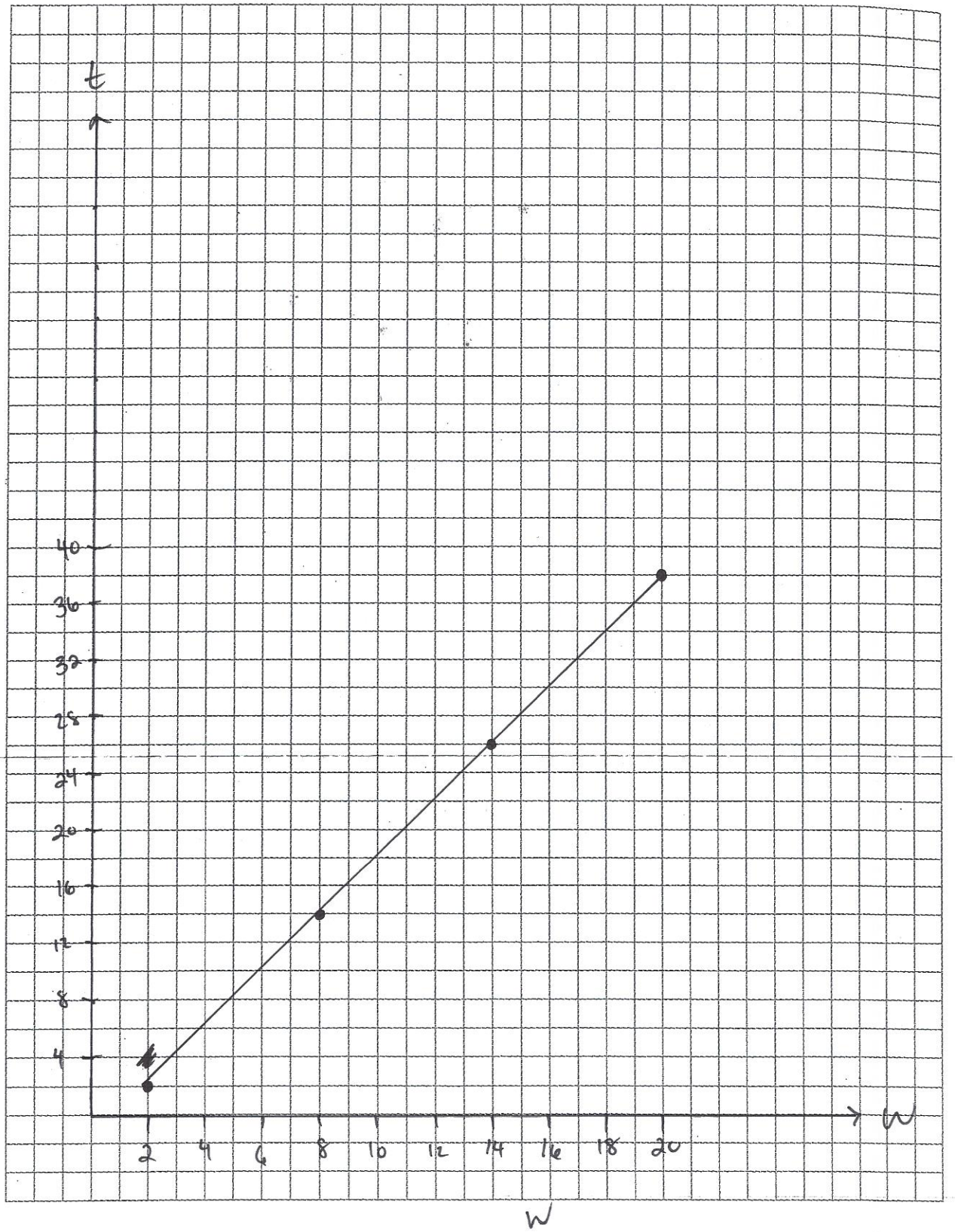
Linear Relations Test

Date: _____

0.5 Centimetre Grid Paper

Patterns in Tables of Values.

a)



t

w

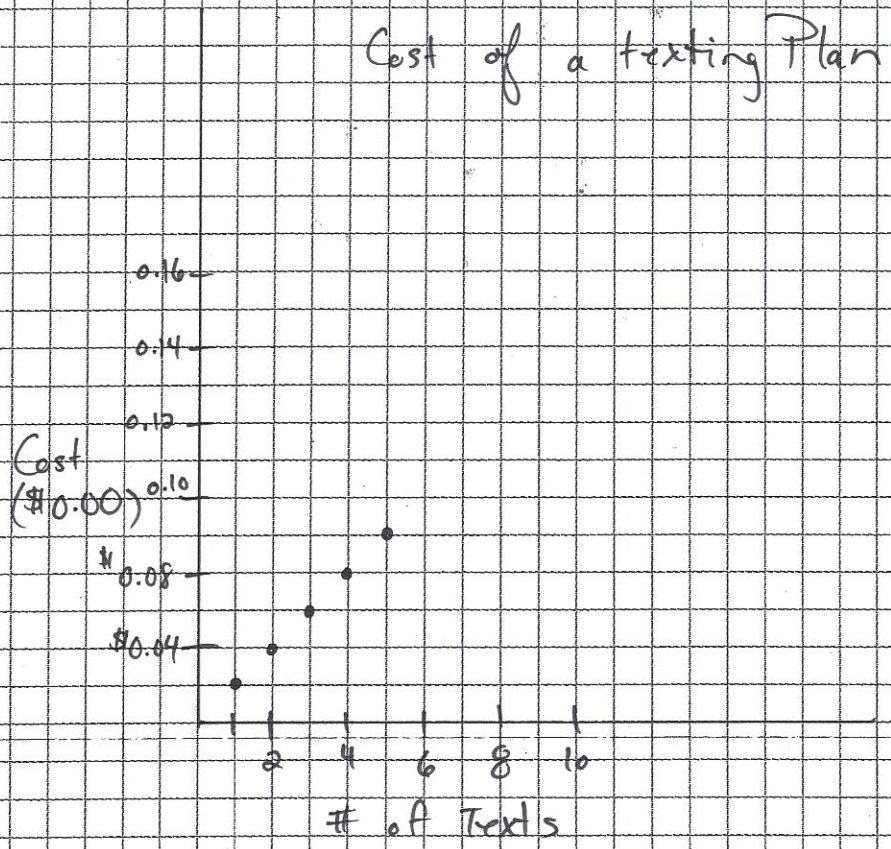
Date: _____

0.5 Centimetre Grid Paper

Patterns in Tables of Values.

Table of Values.

Text	1	2	3	4	5
Cost	0.02	0.04	0.06	0.08	0.10



* Cannot have points between the ones on the graph because you cannot have portions of a text message. (Can't have 1.5 text messages)