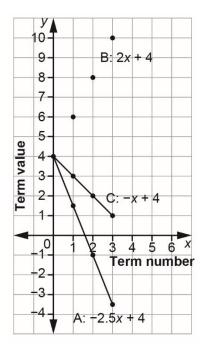# Answers

1. a) Each pattern is shown as an expression and in another form.
Complete the table of values for pattern B.
Add graphs of patterns B and C to the graph of pattern A.
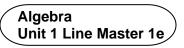
B: $2x + 4$

Term 0	Term 1	Term 2	Term 3

Term number, x	Term value, y
0	4
1	6
2	8
3	10

C: $-x + 4$

x	$-x + 4$
0	4
1	3
2	2
3	1

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Answers (cont'd)

b) How do the expressions compare?
How do the graphs compare?

Each expression has a constant term of 4.
They all have different coefficients of *x*.
The graphs all have the same initial point (0, 4).
Two of the graphs are straight lines that slope down to the right.
The graph of Pattern B is a series of dots that lie along
a straight line that slopes up to the right.

2. a) Each expression represents a pattern.
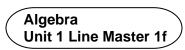For each pattern, complete the table.

A: −2*x*

x	−2*x*
0	0
1	−2
2	−4
3	−6

B: −2*x* + 2

x	−2*x* + 2
0	2
1	0
2	−2
3	−4

C: −2*x* + 4

x	−2*x* + 4
0	4
1	2
2	0
3	−2

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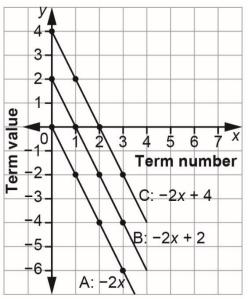Name_____ Date_____

Answers (cont'd)

b) Graph each pattern on the grid provided on the next page. You can join each set of points with a line.

b) How do the expressions compare?
How do the lines on the graph compare?

Each expression has a different constant term.
They all have the same coefficient of *x*, which is –2.
The graphs all have different initial points.
All the graphs are straight lines that slope down to the right and have the same steepness. They are parallel.