Flip, Slide, Turn Answers

**Algebra**

**Unit 4 Line Master 4e**

1. a) For example: The value of *c* is added to or taken away from the value of 3*x*.
So, I think the graph will shift up and down.

b) For example: The graph is being translated up and down.

c) For example: The graphs have the same slope, but the *y*-intercepts are different.
When *c* is positive, the graph is translated up *c* units. When *c* is negative,
the graph is translated down *c* units.

d) $y = 5x- 6$

e) The graph of $y=-7x $was translated down 3 units.

2. a) For example: The value of *c* is added to or taken away from the value of *x*.
So, I think the graph will shift left or right.

b) For example: The graph is being translated left and right.

c) For example: The graphs have the same slope, but the *y*-intercepts are different.
When *c* is positive, the graph is translated left. When *c* is negative, the graph is translated right.

d) For example: No, when *c* = 4, the *y*-intercept is 12, not 4. This is because *c* is multiplied by the coefficient, 3; 3 × 4 = 12.

e) $y = 5\left(x+ 6\right) or y=5x+30$

f) For example: The graph of $y=-2x$ was translated right 4 units.

3. a) For example: It looks like the lines are mirror images of each other.
I think this relationship will stay the same.

b) For example: The graph of *y* = *ax* is being reflected in either the *x*- or *y*-axis*.*It looks like either reflection would have the same result.

c) For example: The graphs have the same *y*-intercept, but the slopes
have the same numbers but opposite signs.

d) $y = 10x$

e) For example: The graph of $y=2x+3 $ could have been reflected in the *y*-axis or
it could have been reflected in the line *y* = 3.

 **Flip, Slide, Turn Answers** (cont’d)

**Algebra**

**Unit 4 Line Master 4f**

4. a) For example: It looks like the lines are perpendicular.
I think this relationship will stay the same.

b) For example: The graph of $y=ax$ is being rotated 90° clockwise or
90° counterclockwise about its *y*-intercept, 0.

c) For example: The graphs have the same *y*-intercept, but the slope of the new graph
is the negative reciprocal of the slope of the graph of $y=ax$.

d) For example: Yes, the graph of $y=ax$ + 2 is rotated 90° clockwise or
90° counterclockwise about its *y*-intercept, which is now 2.

e) $y = \frac{1}{5}x$

f) For example: The graph of $y=6x$ could have been rotated 90° clockwise
about the origin.