

Name _____

Date _____

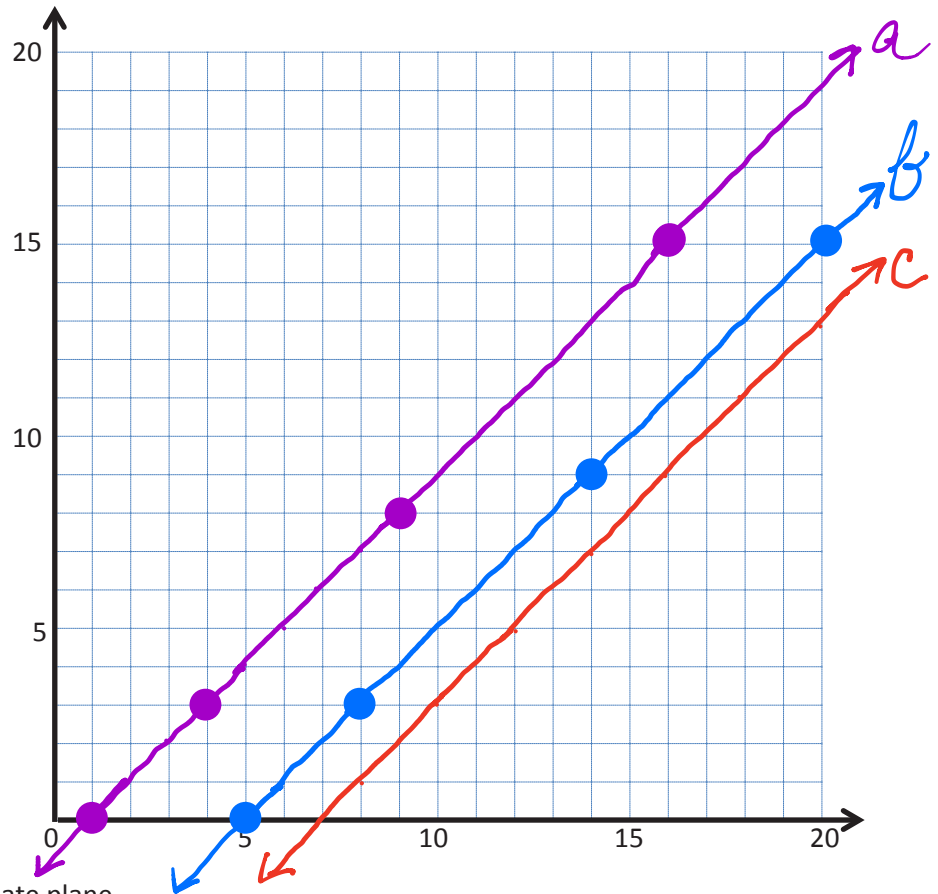
1. Complete the table for the given rules.

Line *a*Rule: *y* is 1 less than *x*

<i>x</i>	<i>y</i>	(<i>x</i> , <i>y</i>)
1	0	(1, 0)
4	3	(4, 3)
9	8	(9, 8)
16	15	(16, 15)

Line *b*Rule: *y* is 5 less than *x*

<i>x</i>	<i>y</i>	(<i>x</i> , <i>y</i>)
5	0	(5, 0)
8	3	(8, 3)
14	9	(14, 9)
20	15	(20, 15)



- Construct each line on the coordinate plane.
- Compare and contrast these lines.

(Answers will vary.)

The lines are parallel. Line *b* is "lower" than Line *a* because it use "5 less" rather than "1 less".

- Based on the patterns you see, predict what line *c*, whose rule is *y* is 7 less than *x*, would look like. Draw your prediction on the plane above.

(Answers will vary.)

Line *C* would be parallel to Line *b*, but lower.

2. Complete the table for the given rules.

Line *e*

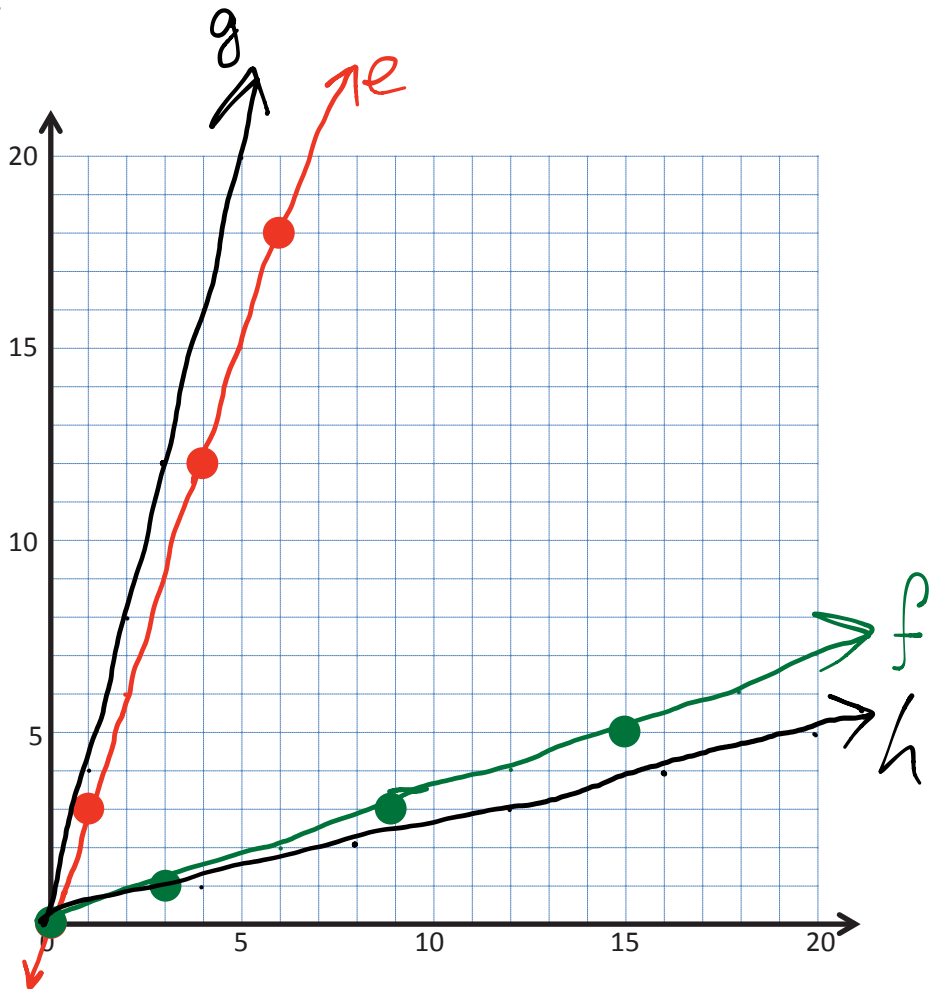
Rule: *y* is 3 times as much as *x*

<i>x</i>	<i>y</i>	(<i>x</i> , <i>y</i>)
0	0	(0, 0)
1	3	(1, 3)
4	12	(4, 12)
6	18	(6, 18)

Line *f*

Rule: *y* is a third as much as *x*

<i>x</i>	<i>y</i>	(<i>x</i> , <i>y</i>)
0	0	(0, 0)
3	1	(3, 1)
9	3	(9, 3)
15	5	(15, 5)



- Construct each line on the coordinate plane.
- Compare and contrast these lines.

(Answers will vary.)

Both lines go through (0,0). They are not parallel.

- Based on the patterns you see, predict what line *g*, whose rule is *y* is 4 times as much as *x*, and line *h*, whose rule is *y* is one-fourth as much as *x*, would look like. Draw your prediction in the plane above.

(Answers will vary.)

Line *g* will be more steep than Line *e*.
Line *h* will be less steep than Line *f*.