

Name _____

Date _____

1. Complete the tables for the given rules.

Line ℓ

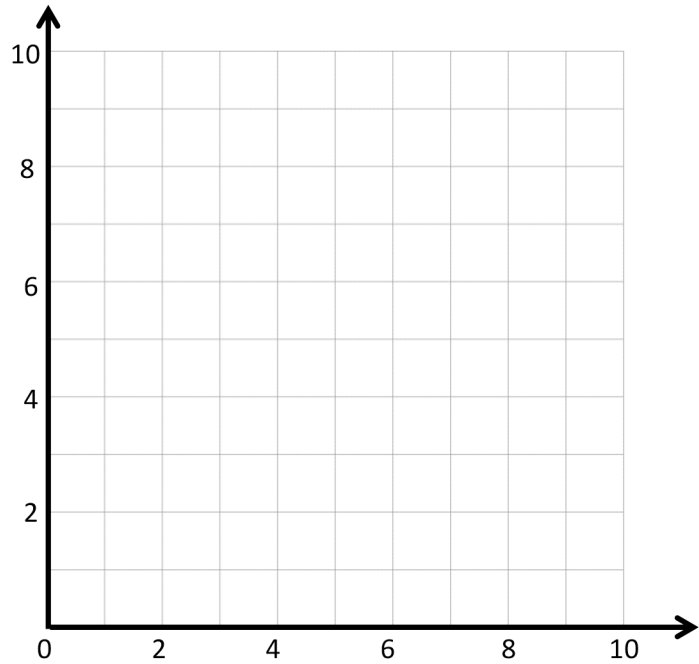
Rule: Double x

x	y	(x, y)
1		
2		
3		

Line m

Rule: Double x , then subtract 1

x	y	(x, y)
1		
2		
3		



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

- Based on the patterns you see, predict what the line for the rule *double x , then add 1* would look like. Draw your prediction on the plane above.

2. Circle the point(s) that the line for the rule *multiply by $\frac{1}{2}$ then add 1* would contain.

$(0, \frac{1}{2})$

$(2, 1\frac{1}{4})$

$(2, 2)$

$(3, \frac{1}{2})$

- Explain how you know.
- Give two other points that fall on this line.

3. Complete the tables for the given rules.

Line ℓ

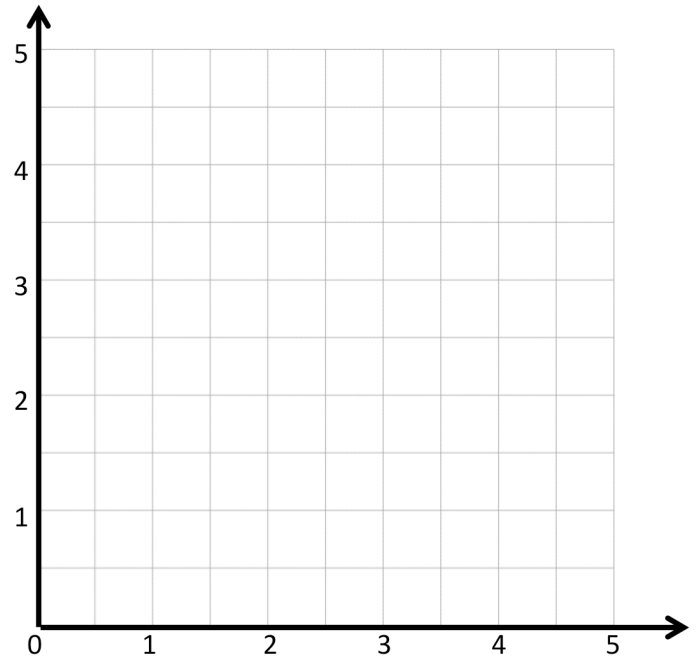
Rule: Halve x , then add 1

x	y	(x, y)
0		
1		
2		
3		

Line m

Rule: Halve x , then add $1\frac{1}{4}$

x	y	(x, y)
0		
1		
2		
3 ^{d.}		
e.		



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

c. Based on the patterns you see, predict what the line for the rule *halve x , then subtract 1* would look like. Draw your prediction on the plane above.

4. Circle the point(s) that the line for rule *multiply by $\frac{3}{4}$, then subtract $\frac{1}{2}$* would contain.

$(1, \frac{1}{4})$

$(2, \frac{1}{4})$

$(3, 1\frac{3}{4})$

$(3, 1)$

- Explain how you know.

- Give two other points that fall on this line.

Answer Key

- ℓ : 2, (1, 2); 4, (2, 4); 6, (3, 6)
 m : 1, (1, 1); 3, (2, 3); 5, (3, 5)
 - Accurate lines drawn
 - Answers will vary.
 - Answers will vary.
- (2, 2) circled
 - Answers will vary.
 - Answers will vary.
- ℓ : 1, (0, 1); $1\frac{1}{2}$, $(1, 1\frac{1}{2})$; 2, (2, 2); $2\frac{1}{2}$, $(3, 2\frac{1}{2})$
 m : $1\frac{1}{4}$, $(0, 1\frac{1}{4})$; $1\frac{3}{4}$, $(1, 1\frac{3}{4})$; $2\frac{1}{4}$, $(2, 2\frac{1}{4})$; $2\frac{3}{4}$, $(3, 2\frac{3}{4})$
 - Accurate lines drawn
 - Answers will vary.
 - Answers will vary.
- $(1, \frac{1}{4})$ and $(3, 1\frac{3}{4})$ circled
 - Answers will vary.
 - Answers will vary.