

# Mid-Chapter Check

## Vocabulary Check



1. Define *sequence*. Give an example of an arithmetic and a geometric sequence. (Lesson 2)

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2. Fill in the blank in the sentence below with the correct term. (Lesson 1)

A \_\_\_\_\_ is a relation that assigns exactly one output value to one input value.

## Skills Check and Problem Solving

Complete each function table. (Lesson 1)

3.

Input ( $x$ )	$2x + 6$	Output
0		
1		
2		

4.

Input ( $x$ )	$3x + 1$	Output
0		
1		
2		

- MP Identify Structure** Find the rule for each function table. (Lesson 2)

5.

Input ( $x$ )	Output
3	6
4	8
5	10

6.

Input ( $x$ )	Output
1	3
2	7
3	11

7.

Input ( $x$ )	Output
2	8
3	11
4	14

8. Arnold reads an average of 21 pages each day. Write an equation to represent the number of pages read after any number of days. (Lesson 4)

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9. **MP Reason Abstractly** The table shows the cost of renting an inner tube to use at the Wave-a-Rama Water Park. Explain how to write an equation to represent the data in the table. Then give the equation for the data. (Lesson 3)

Input ( $x$ )	Cost ( $y$ )
2	\$11.00
3	\$16.50
4	\$22.00

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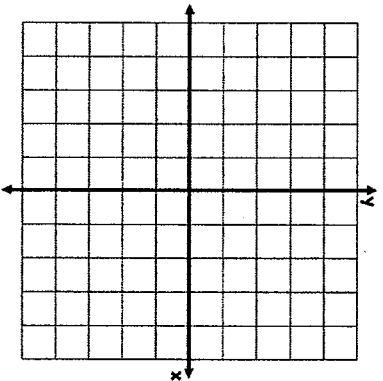
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5.  $x + y = -3$

x		y

x-intercept ( \_\_ , \_\_ )  
 y-intercept ( \_\_ , \_\_ )

(Circle one)  
 Is this a linear function? Yes or No

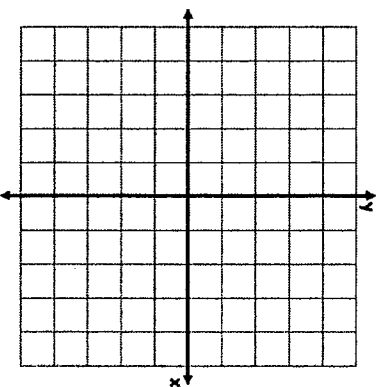


6.  $y = -x + 5$

x		y

x-intercept ( \_\_ , \_\_ )  
 y-intercept ( \_\_ , \_\_ )

(Circle one)  
 Is this a linear function? Yes or No

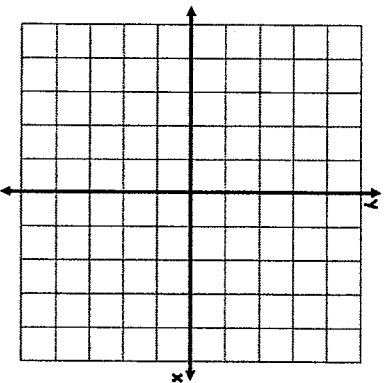


7.  $2x - y = -2$

x		y

x-intercept ( \_\_ , \_\_ )  
 y-intercept ( \_\_ , \_\_ )

(Circle one)  
 Is this a linear function? Yes or No

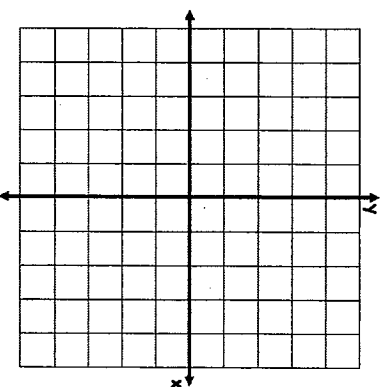


8.  $y = x^2 - 4$

x		y

x-intercepts ( \_\_ , \_\_ ) and ( \_\_ , \_\_ )  
 y-intercept ( \_\_ , \_\_ )

(Circle one)  
 Is this a linear function? Yes or No



Name: \_\_\_\_\_

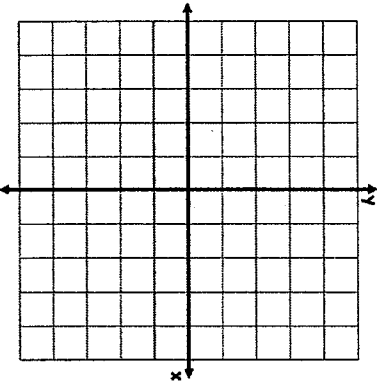
1.  $y=x-2$

x	$x-2$	y
-1		
0		
1		
2		

x-intercept ( \_\_, 0 )

y-intercept ( 0, \_\_ )

(Circle one)  
Is this a linear function? Yes or No



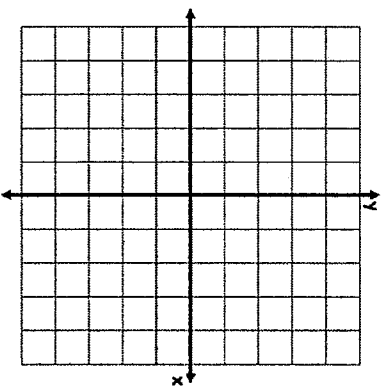
2.  $y=-2x$

x	$-2x$	y
-1		
0		
1		
2		

x-intercept ( \_\_, 0 )

y-intercept ( 0, \_\_ )

(Circle one)  
Is this a linear function? Yes or No



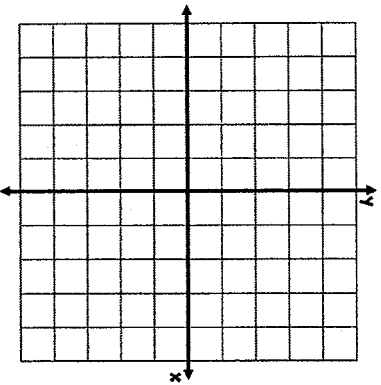
3.  $y=2x+6$

x	$2x+6$	y
-3		
-2		
-1		
0		

x-intercept ( \_\_, 0 )

y-intercept ( 0, \_\_ )

(Circle one)  
Is this a linear function? Yes or No



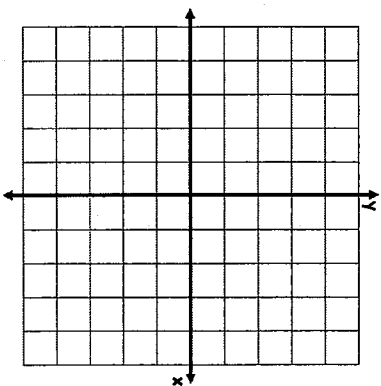
4.  $y=(x-2)^2$

x	$(x-2)^2$	y
0		
1		
2		
3		

x-intercept ( \_\_, \_\_ )

y-intercept ( \_\_, \_\_ )

(Circle one)  
Is this a linear function? Yes or No



Words

At a sports store, it costs \$2 per hour to rent skates plus \$3 for safety equipment.  
Define variables:

Equation

Table

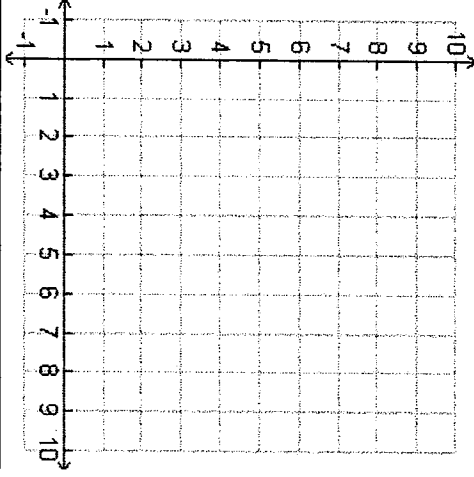
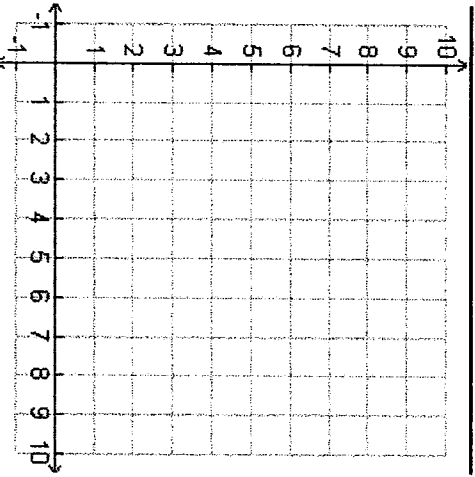
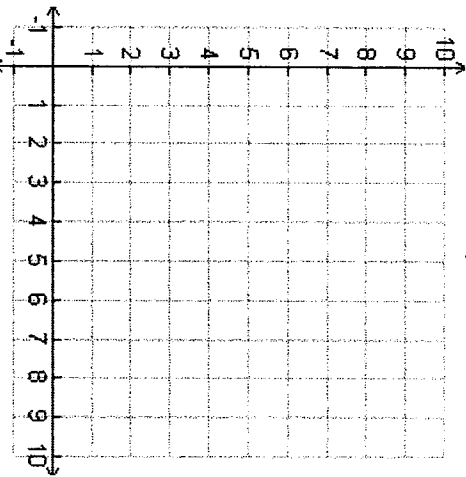
Graph

Slope

Y-Intercept

The drive-in movies cost \$4 plus an additional \$2 for every person in the car.  
Define variables:

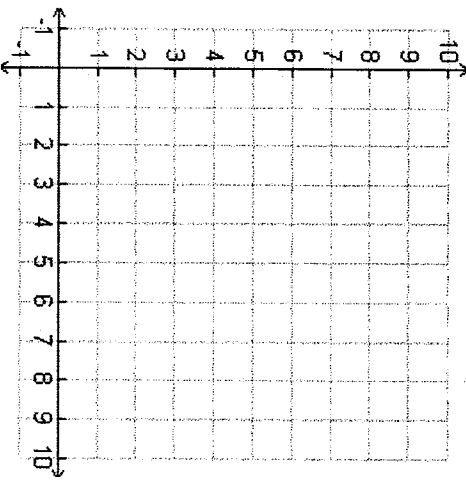
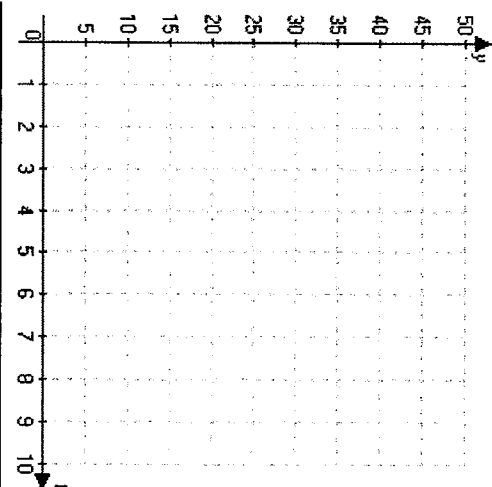
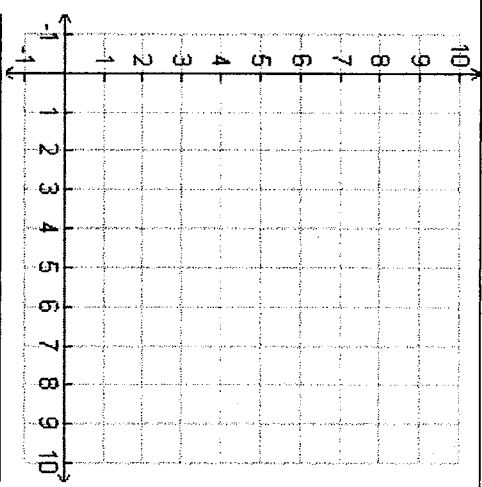
A local music store charges \$4 for each CD. You also have a coupon for \$3 off.  
Define variables:



Sam runs 5 miles before school every day to train for the big track meet. After school, he also runs at rate of 2 miles per hour. Define variables:

A cafeteria started with 50 lunches and served 15 per hour. Define variables:

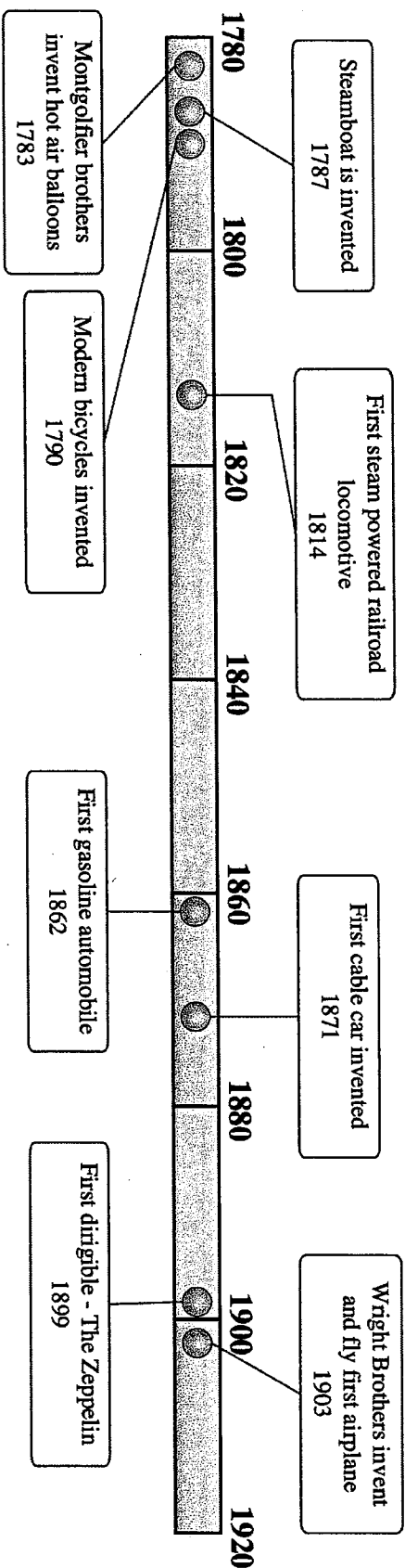
A movie store rents movies for \$5.00 per movie. You have a coupon for \$2.50 off. Define variables:





Use the timeline to answer the questions.

**Major Events in Transportation**



- 1) Which happened earlier? A. First cable car invented or B. First gasoline automobile invented \_\_\_\_\_
- 2) What year were modern bicycles invented? \_\_\_\_\_
- 3) How many years after the first dirigible was created was the first airplane invented \_\_\_\_\_
- 4) What year was the steamboat invented? \_\_\_\_\_
- 5) What is the span (number of years shown) of this timeline? \_\_\_\_\_
- 6) What year was the cable car invented? \_\_\_\_\_
- 7) What year were hot air balloons invented? \_\_\_\_\_
- 8) The first modern helicopter was invented in 1940. Could you put that event on the timeline above? ( Yes / No )
- 9) What is this timeline about? \_\_\_\_\_
- 10) What event happened in 1903? \_\_\_\_\_

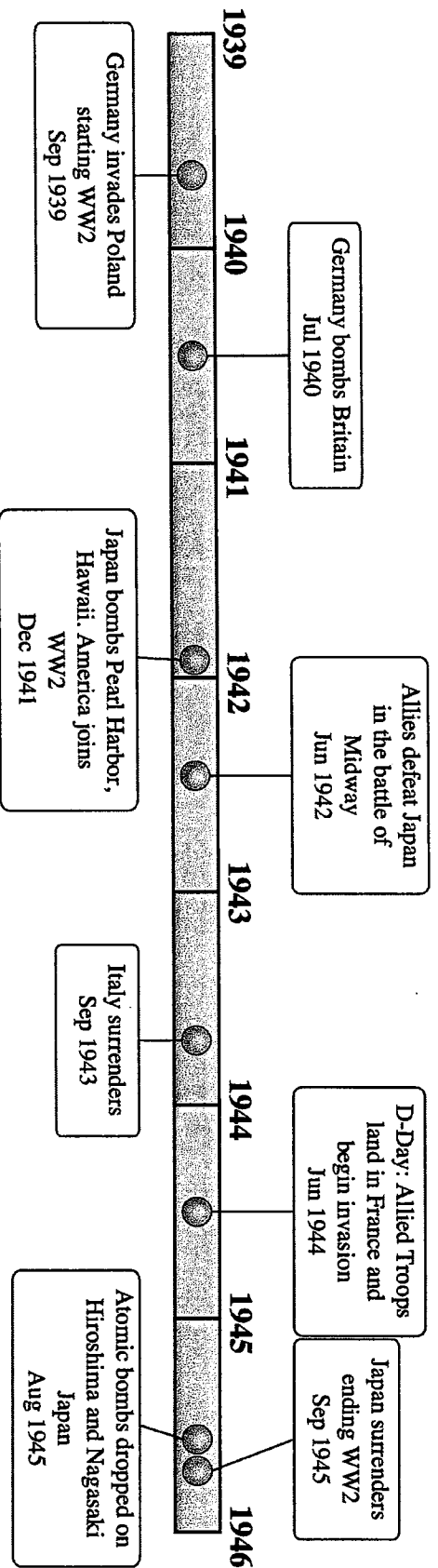
**Answers**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. **Use Line**
10. **Use Line**



Use the timeline to answer the questions.

Major Events of World War 2



- 1) Which happened earlier? A. Italy Surrenders or B. D-Day \_\_\_\_\_
- 2) How many months after the atomic bombs were dropped did Japan surrender? \_\_\_\_\_
- 3) What year was Britain bombed by Germany? \_\_\_\_\_
- 4) What year did World War 2 start? \_\_\_\_\_
- 5) What is the span (number of years shown) of this timeline? \_\_\_\_\_
- 6) What year was the battle of Midway? \_\_\_\_\_
- 7) What year did America join World War 2? \_\_\_\_\_
- 8) Japan captured Singapore in February of 1942. Could you put this event on the timeline above? ( Yes / No )
- 9) What is this timeline about? \_\_\_\_\_
- 10) What event happened in 1944? \_\_\_\_\_

Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. Use Line
10. Use Line