Quick Check – Form A

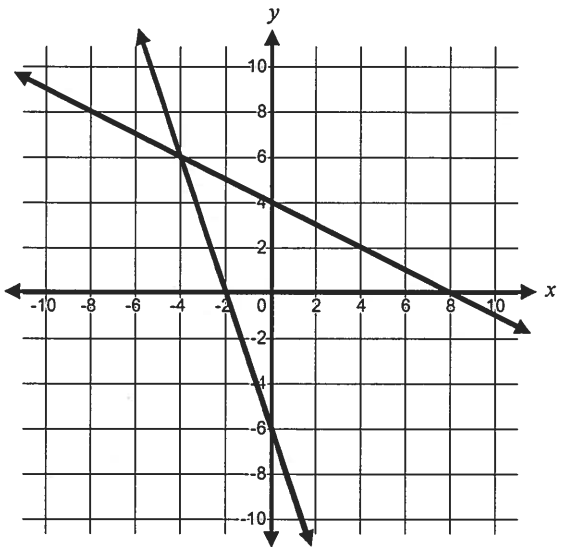
Readiness Standard 1 - A.REI.6

Name Key Date

Learning Target: I will solve systems of equations.

Directions: Find the solution to each system of equations. (Work time: 5 minutes)

1. $y = -\frac{1}{2}x + 4$ and $y = -3x - 6$



Solution: (-4 , 6)

2. $y = 3x$ and $y = 7x + 20$

$3x = 7x + 20$

$-7x \quad -7x$

$\frac{-4x}{-4} = \frac{20}{-4}$

$x = -5$

$y = 3(-5)$

$y = -15$

Solution: (-5 , -15)

3. $4x + y = 22$ and $2x - y = 8$

$4x + y = 22$

$2x - y = 8$

$\frac{6x}{6} = \frac{30}{6}$

$x = 5$

x-coordinate of the solution: 5

4. $x - 3y = -11$ and $-x + 7y = 31$

$x - 3y = -11$

$-x + 7y = 31$

$\frac{4y}{4} = \frac{20}{4}$

$y = 5$

y-coordinate of the solution: 5

Quick Check – Form B

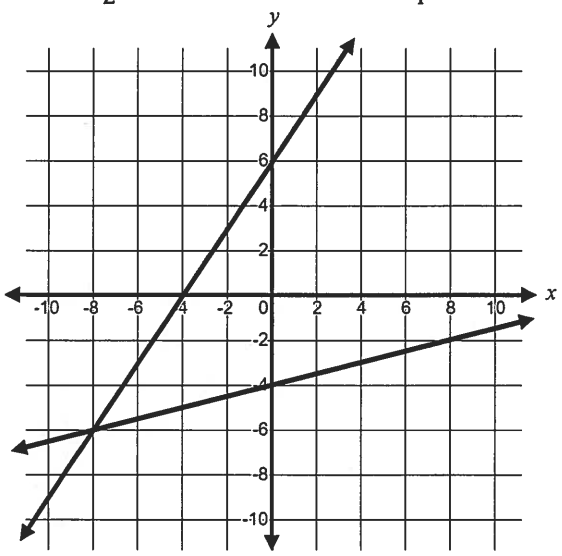
Readiness Standard 1 - A.REI.6

Name Key Date

Learning Target: I will solve systems of equations.

Directions: Find the solution to each system of equations. (Work time: 5 minutes)

1. $y = \frac{3}{2}x + 6$ and $y = \frac{1}{4}x - 4$



Solution: (-8 , -6)

2. $y = -4x$ and $y = 8x + 24$

$-4x = 8x + 24$

$-8x \quad -8x$

$\frac{-12x}{-12} = \frac{24}{-12}$

$x = -2$

$y = -4(-2)$

$y = 8$

Solution: (-2 , 8)

3. $7x + y = 45$ and $-3x - y = -21$

$7x + y = 45$

$-3x - y = -21$

$\frac{4x}{4} = \frac{24}{4}$

$x = 6$

x-coordinate of the solution: 6

4. $x - 3y = 15$ and $-x + 2y = 5$

$x - 3y = 15$

$-x + 2y = 5$

$\frac{-y}{-1} = \frac{20}{-1}$

$y = -20$

y-coordinate of the solution: -20

Quick Check – Form C

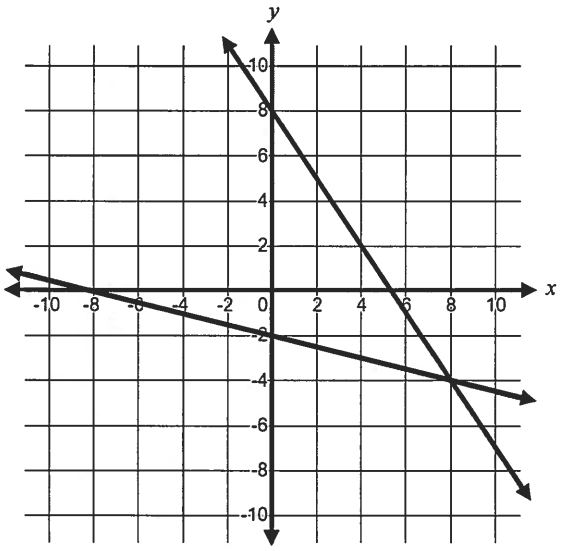
Readiness Standard 1 - A.REI.6

Name Key Date

Learning Target: I will solve systems of equations.

Directions: Find the solution to each system of equations. (Work time: 5 minutes)

1. $y = -\frac{3}{2}x + 8$ and $y = -\frac{1}{4}x - 2$



Solution: (8 , -4)

2. $y = 4x$ and $y = 6x - 12$

$4x = 6x - 12$

$-6x \quad -6x$

$\frac{-2x}{-2} = \frac{-12}{-2}$

$x = 6$

$y = 4(6)$

$y = 24$

Solution: (6 , 24)

3. $5x + y = 14$ and $3x - y = 2$

$5x + y = 14$

$3x - y = 2$

$\frac{8x}{8} = \frac{16}{8}$

$x = 2$

x-coordinate of the solution: 2

4. $-x - 4y = -22$ and $x + 6y = 32$

$-x - 4y = -22$

$x + 6y = 32$

$\frac{2y}{2} = \frac{10}{2}$

$y = 5$

y-coordinate of the solution: 5

Quick Check – Form D

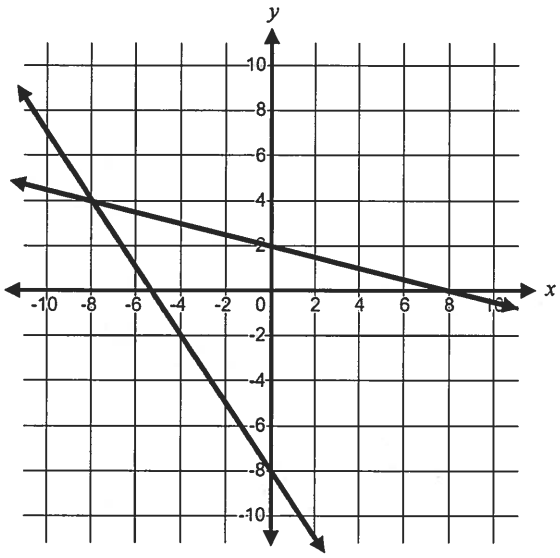
Readiness Standard 1 - A.REI.6

Name Key Date

Learning Target: I will solve systems of equations.

Directions: Find the solution to each system of equations. (Work time: 5 minutes)

1. $y = -\frac{1}{4}x + 2$ and $y = -\frac{3}{2}x - 8$



Solution: (-8 , 4)

2. $y = -3x$ and $y = 5x + 24$

$-3x = 5x + 24$

$-5x \quad -5x$

$\frac{-8x}{-8} = \frac{24}{-8}$

$x = -3$

$y = -3(-3)$

$y = 9$

Solution: (-3 , 9)

3. $3x + y = -10$ and $-5x - y = 18$

$3x + y = -10$

$-5x - y = 18$

$\frac{-2x}{-2} = \frac{8}{-2}$

$x = -4$

x-coordinate of the solution: -4

4. $-x + 3y = 2$ and $x + 5y = 22$

$-x + 3y = 2$

$x + 5y = 22$

$\frac{8y}{8} = \frac{24}{8}$

$y = 3$

y-coordinate of the solution: 3

Quick Check – Form A

Readiness Standard 2 - A.SSE.3a

Name Key Date

Learning Target: I will factor quadratic expressions to reveal the zeros of a function.

Directions: Circle the answer(s) to each question. (Work time: 4 minutes)

1. The area model below represents the expression $x^2 + 7x + 10$.
What are the factors of the expression?

$+x^2$	$+x$	$+x$	$+x$	$+x$	$+x$
$+x$	+1	+1	+1	+1	+1
$+x$	+1	+1	+1	+1	+1

Factors: $(x+5)$ and $(x+2)$

2. Factor the expression.

$$x^2 + 2x - 15$$

$2 \neq -1 \quad 15$
$2 \neq 1 \quad -15$
$2 = -3 \quad 5$
$2 \neq 3 \quad -5$

X^2	$+X$	$+X$	$+X$	$+X$	$+X$
$-X$	-1	-1	-1	-1	-1
$-X$	-1	-1	-1	-1	-1
$-X$	-1	-1	-1	-1	-1

Factors: $(x+5)$ and $(x-3)$

3. Find the zeros of the function.

$$f(x) = x^2 + 2x - 15$$

$0 = (x+5)(x-3)$

$0 = x+5$ $\quad$ $0 = x-3$
$-5 \quad -5$ $\quad$ $+3 \quad +3$
$-5 = x$ $\quad$ $3 = x$
$(-5, 0)$ $\quad$ $(3, 0)$

Zeros: $(-5,0)$ and $(3,0)$

4. Find the zeros of the function.

$$f(x) = x^2 + 7x + 10$$

$0 = (x+5)(x+2)$

$0 = x+5$ $\quad$ $0 = x+2$
$-5 \quad -5$ $\quad$ $-2 \quad -2$
$-5 = x$ $\quad$ $-2 = x$
$(-5, 0)$ $\quad$ $(-2, 0)$

Zeros: $(-5,0)$ and $(-2,0)$

Quick Check – Form B

Readiness Standard 2 - A.SSE.3a

Name Key Date

Learning Target: I will factor quadratic expressions to reveal the zeros of a function.

Directions: Circle the answer(s) to each question. (Work time: 4 minutes)

1. The area model below represents the expression $x^2 + 8x + 12$.
What are the factors of the expression?

$+x^2$	$+x$	$+x$	$+x$	$+x$	$+x$
$+x$	+1	+1	+1	+1	+1
$+x$	+1	+1	+1	+1	+1
$+x$	+1	+1	+1	+1	+1

Factors: $(x+3)$ and $(x+4)$

2. Factor the expression.

$x^2 + 4x - 12$

1 12 2 6 3 4
-12 -1 -6 -2 -4 -3
=4

$(x+6)(x-2)$

Factors: $(x+6)$ and $(x-2)$

3. Find the zeros of the function.

$f(x) = x^2 + 4x - 12$

$0 = (x+6)(x-2)$

$0 = x+6$ $0 = x-2$
$-6 \quad -6$ $+2 \quad +2$
$-6 = x$ $2 = x$

$(-6,0)$ $(2,0)$

Zeros: $(-6,0)$ and $(2,0)$

4. Find the zeros of the function.

$f(x) = x^2 + 10x + 16$

$0 = (x+8)(x+2)$

$0 = x+8$ $0 = x+2$
$-8 \quad -8$ $-2 \quad -2$
$-8 = x$ $-2 = x$

$(-8,0)$ $(-2,0)$

Zeros: $(-8,0)$ and $(-2,0)$

Quick Check – Form C

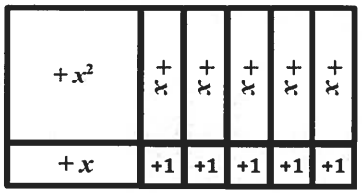
Readiness Standard 2 - A.SSE.3a

Name Key Date

Learning Target: I will factor quadratic expressions to reveal the zeros of a function.

Directions: Circle the answer(s) to each question. (Work time: 4 minutes)

1. The area model below represents the expression $x^2 + 6x + 5$.
What are the factors of the expression?



Factors: $(x+1)$ and $(x+5)$

2. Factor the expression.

$$x^2 - 2x - 15$$

Factors: $(x-5)$ and $(x+3)$

3. Find the zeros of the function.

$$f(x) = x^2 - 2x - 15$$

$0 = (x-5)(x+3)$

$0 = x-5$ $\quad$ $0 = x+3$

$+5 \quad +5$ $\quad$ $-3 \quad -3$

$5 = x$ $\quad$ $-3 = x$

$(5,0)$ $\quad$ $(-3,0)$

Zeros: $(5,0)$ and $(-3,0)$

4. Find the zeros of the function.

$$f(x) = x^2 + 8x + 12$$

$0 = (x+6)(x+2)$

$0 = x+6$ $\quad$ $0 = x+2$

$-6 \quad -6$ $\quad$ $-2 \quad -2$

$-6 = x$ $\quad$ $-2 = x$

$(-6,0)$ $\quad$ $(-2,0)$

Zeros: $(-6,0)$ and $(-2,0)$

Quick Check – Form D

Readiness Standard 2 - A.SSE.3a

Name Key Date

Learning Target: I will factor quadratic expressions to reveal the zeros of a function.

Directions: Circle the answer(s) to each question. (Work time: 4 minutes)

1. The area model below represents the expression $x^2 + 5x + 6$.
What are the factors of the expression?

$+x^2$	$+x$	$+x$	$+x$
$+x$	+1	+1	+1
$+x$	+1	+1	+1

Factors: $(x+3)$ and $(x+2)$

2. Factor the expression.

$$x^2 - 4x - 12$$

Factors: $(x-6)$ and $(x+2)$

3. Find the zeros of the function.

$$f(x) = x^2 - 4x - 12$$

$0 = (x-6)(x+2)$

$0 = x-6$ $\quad +6 \quad +6$

$6 = x$

$(6,0)$

$0 = x+2$ $\quad -2 \quad -2$

$-2 = x$

$(-2,0)$

Zeros: $(6,0)$ and $(-2,0)$

4. Find the zeros of the function.

$$f(x) = x^2 + 9x + 18$$

$0 = (x+6)(x+3)$

$0 = x+6$ $\quad -6 \quad -6$

$-6 = x$

$(-6,0)$

$0 = x+3$ $\quad -3 \quad -3$

$-3 = x$

$(-3,0)$

Zeros: $(-6,0)$ and $(-3,0)$

Quick Check – Form A

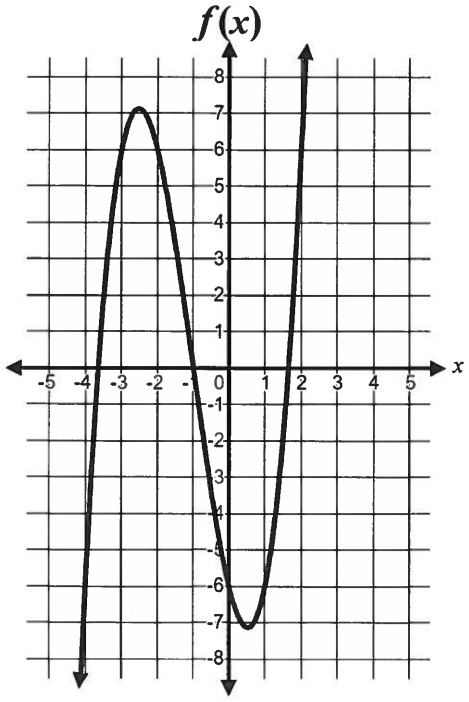
Readiness Standard 3 – F.IF.2

Name Key Date

Learning Target: I will evaluate linear and non-linear functions.

Directions: Circle the answer(s) to each question. (Work time: 4 minutes)

Use the graph to find each value of $f(x)$.



1. $f(0) =$ -6

2. $f(-2) =$ 6

3. $f(1) =$ -6

4. For the function $g(x) = x + 5$, find the value of $g(-3)$.

$g(-3) = -3+5$

$g(-3) = 2$

Answer: 2

5. For the function $h(x) = x^2 - 6$, find the value of $h(-4)$.

$h(-4) = (-4)^2 - 6$

$= 16 - 6$

$= 10$

Answer: 10

Quick Check – Form B

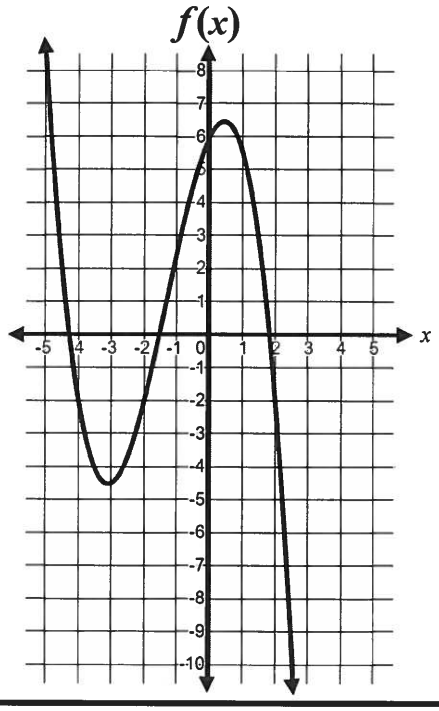
Readiness Standard 3 – F.IF.2

Name Key Date _____

Learning Target: I will evaluate linear and non-linear functions.

Directions: Circle the answer(s) to each question. (Work time: 4 minutes)

Use the graph to find each value of $f(x)$.



1. $f(0) =$ 6

2. $f(2) =$ -2

3. $f(-4) =$ -2

4. For the function $g(x) = x - 6$, find the value of $g(4)$.

$g(4) = 4 - 6$

$= -2$

Answer: -2

5. For the function $h(x) = x^2 + 7$, find the value of $h(-5)$.

$h(-5) = (-5)^2 + 7$

$= 25 + 7$

$= 32$

Answer: 32

Quick Check – Form C

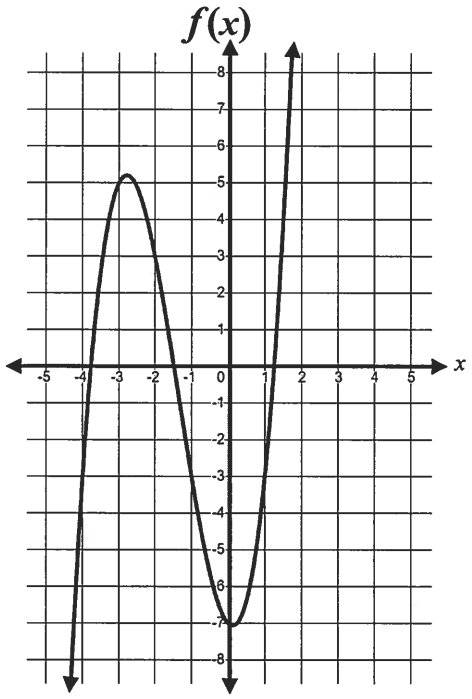
Readiness Standard 3 – F.IF.2

Name Key Date

Learning Target: I will evaluate linear and non-linear functions.

Directions: Circle the answer(s) to each question. (Work time: 4 minutes)

Use the graph to find each value of $f(x)$.



1. $f(0) =$ -7

2. $f(-3) =$ 5

3. $f(1) =$ -3

4. For the function $g(x) = x + 7$, find the value of $g(-2)$.

$g(-2) = -2 + 7$

$= 5$

Answer: 5

5. For the function $h(x) = x^2 - 8$, find the value of $h(-6)$.

$h(-6) = (-6)^2 - 8$

$= 36 - 8$

$= 28$

Answer: 28

Quick Check – Form D

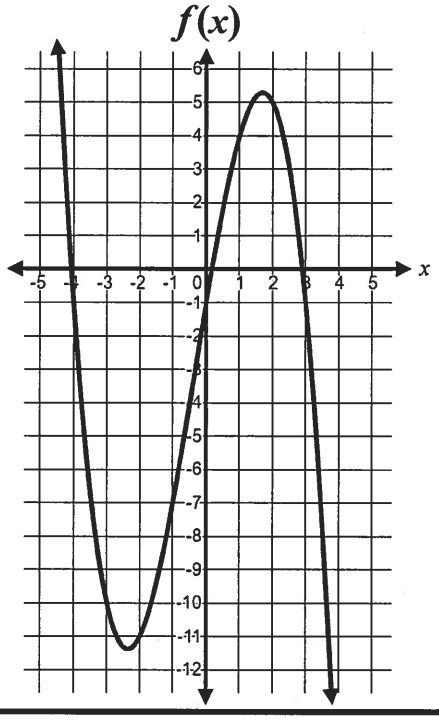
Readiness Standard 3 – F.IF.2

Name Key Date

Learning Target: I will evaluate linear and non-linear functions.

Directions: Circle the answer(s) to each question. (Work time: 4 minutes)

Use the graph to find each value of $f(x)$.



1. $f(0) =$ -1

2. $f(1) =$ 4

3. $f(-2) =$ -11

4. For the function $g(x) = x - 8$, find the value of $g(5)$.

$g(5) = 5 - 8$

$= -3$

Answer: -3

5. For the function $h(x) = x^2 + 9$, find the value of $h(-7)$.

$h(-7) = (-7)^2 + 9$

$= 49 + 9$

$= 58$

Answer: 58

Quick Check – Form A

Readiness Standard 4 – F.LE.1

Name Key _____ Date _____

Learning Target: I will determine if a function is linear or non-linear. (Work time: 4 minutes)

1. Given the function provided in the table, circle the answer choice that makes the statement true.

x	0	1	2	3	5
$f(x)$	1	3	5	7	9

missing $x = 4$ which would go with $f(x) = 9$

"The function represented in the table is _____."

- linear because the values of x and $f(x)$ always change at a constant rate
- linear because the values of x and $f(x)$ do not always change at a constant rate
- non-linear because the values of x and $f(x)$ always change at a constant rate
- (•) non-linear because the values of x and $f(x)$ do not always change at a constant rate

2. Given the function provided in the table, circle the answer choice that makes the statement true.

x	-1	0	1	2	4
$g(x)$	6	3	0	-3	-9

✓ $x = 3$, $y = -6$

"The function represented in the table is _____."

- (•) linear because the values of x and $g(x)$ always change at a constant rate
- linear because the values of x and $g(x)$ do not always change at a constant rate
- non-linear because the values of x and $g(x)$ always change at a constant rate
- non-linear because the values of x and $g(x)$ do not always change at a constant rate

3. Circle all of the linear functions.

$f(x) = x^3 + 4$ $g(x) = 3x + 4$ $h(x) = 3^x + 4$ $k(x) = x$

4. Circle all of the non-linear functions.

$p(x) = x^2 + 7$ $q(x) = 2x + 7$ $r(x) = 2^x + 7$ $t(x) = x$

Quick Check – Form B

Readiness Standard 4 – F.LE.1

Name Key Date _____

Learning Target: I will determine if a function is linear or non-linear. (Work time: 4 minutes)

1. Given the function of $f(x)$ provided in the table, circle the answer choice that makes the statement true.

x	0	1	2	3	5
$f(x)$	8	6	4	2	0

x=4 NO
y=0

"The function represented in the table is _____."

- linear because the values of x and $f(x)$ do not always change at a constant rate
- linear because the values of x and $f(x)$ always change at a constant rate
- (•) non-linear because the values of x and $f(x)$ do not always change at a constant rate
- non-linear because the values of x and $f(x)$ always change at a constant rate

2. Given the function of $f(x)$ provided in the table, circle the answer choice that makes the statement true.

x	-1	0	1	2	4
$f(x)$	2	4	6	8	10

x=3
y=10 NO

"The function represented in the table is _____."

- (•) non-linear because the values of x and $g(x)$ do not always change at a constant rate
- non-linear because the values of x and $g(x)$ always change at a constant rate
- linear because the values of x and $g(x)$ do not always change at a constant rate
- linear because the values of x and $g(x)$ always change at a constant rate

3. Circle all of the linear functions.

(circled) $f(x) = 4x + 5$ $g(x) = x^4 + 5$ (circled) $h(x) = x$ $k(x) = 4^x + 5$

4. Circle all of the non-linear functions.

(circled) $p(x) = x^2 + 3$ $q(x) = 2x + 3$ (circled) $r(x) = 2^x + 3$ $t(x) = x$

Quick Check – Form C

Readiness Standard 4 – F.LE.1

Name Key _____ Date _____

Learning Target: I will determine if a function is linear or non-linear. (Work time: 4 minutes)

1. Given the function of $f(x)$ provided in the table, circle the answer choice that makes the statement true.

x	0	1	2	3	5
$f(x)$	-4	0	4	8	16

x=4
y=12 ✓

"The function represented in the table is _____."

- linear because the values of x and $f(x)$ do not always change at a constant rate
- (•) linear because the values of x and $f(x)$ always change at a constant rate
- non-linear because the values of x and $f(x)$ always change at a constant rate
- non-linear because the values of x and $f(x)$ do not always change at a constant rate

2. Given the function of $f(x)$ provided in the table, circle the answer choice that makes the statement true.

x	-2	-1	0	1	4
$f(x)$	-4	0	4	8	20

✓ x=2 x=3
y=12 y=16 ✓

"The function represented in the table is _____."

- non-linear because the values of x and $g(x)$ do not always change at a constant rate
- non-linear because the values of x and $g(x)$ always change at a constant rate
- linear because the values of x and $g(x)$ do not always change at a constant rate
- (•) linear because the values of x and $g(x)$ always change at a constant rate

3. Circle all of the linear functions.

$f(x) = x^3 + 4$ $g(x) = 3x + 4$ $h(x) = x$ $k(x) = 3^x + 4$

4. Circle all of the non-linear functions.

$p(x) = 2x + 7$ $q(x) = x$ $r(x) = x^2 + 7$ $t(x) = 2^x + 7$

Quick Check – Form D

Readiness Standard 4 – F.LE.1

Name Key Date _____

Learning Target: I will determine if a function is linear or non-linear. (Work time: 4 minutes)

1. Given the function of $f(x)$ provided in the table, circle the answer choice that makes the statement true.

x	-1	0	1	2	4
$f(x)$	-5	-3	-1	1	3

x=3
y=3 NO

"The function represented in the table is _____."

- non-linear because the values of x and $f(x)$ always change at a constant rate
- (•) non-linear because the values of x and $f(x)$ do not always change at a constant rate
- linear because the values of x and $f(x)$ always change at a constant rate
- linear because the values of x and $f(x)$ do not always change at a constant rate

2. Given the function of $f(x)$ provided in the table, circle the answer choice that makes the statement true.

x	0	1	2	3	5
$f(x)$	5	3	1	-1	-5

x=4
y=-3 ✓

"The function represented in the table is _____."

- non-linear because the values of x and $g(x)$ always change at a constant rate
- non-linear because the values of x and $g(x)$ do not always change at a constant rate
- (•) linear because the values of x and $g(x)$ always change at a constant rate
- linear because the values of x and $g(x)$ do not always change at a constant rate

3. Circle all of the linear functions.

$f(x) = 4^x + 5$ $g(x) = 4x$ $h(x) = x^4 + 5$ $k(x) = x + 4$

4. Circle all of the non-linear functions.

$p(x) = x^2 + 6$ $q(x) = 2x + 6$ $r(x) = x + 6$ $t(x) = 2^x$

Quick Check – Form A

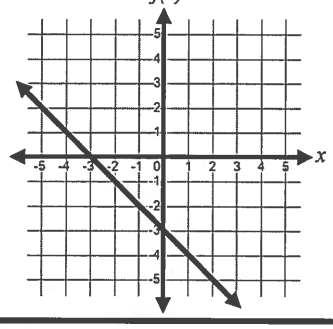
Readiness Standard 5 - A.CED.2

Name Key Date _____

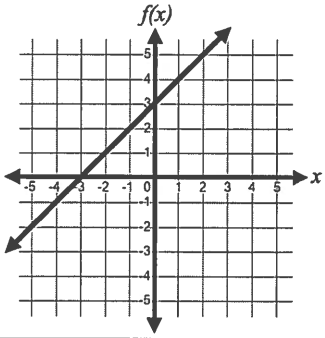
Learning Target: I will identify the graph of linear and non-linear functions. (Work time: 5 minutes)

1. The function $f(x) = x - 3$ could be represented by which graph? **1.** C

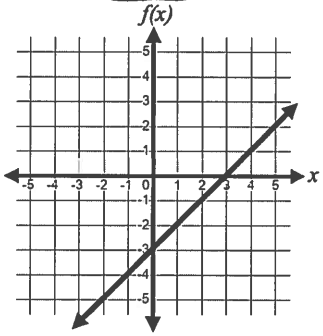
Graph A



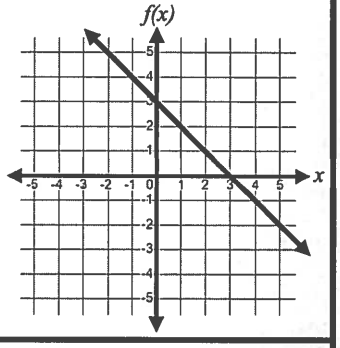
Graph B



Graph C

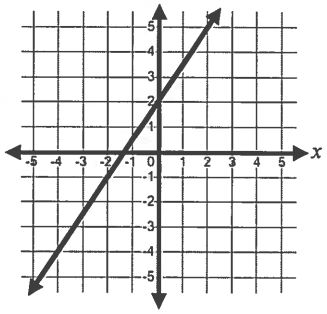


Graph D

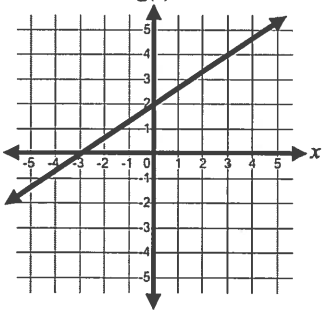


2. The function $g(x) = \frac{2}{3}x + 3$ could be represented by which graph? **2.** C

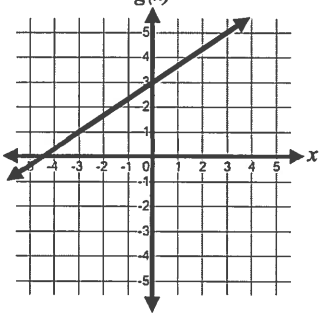
Graph A



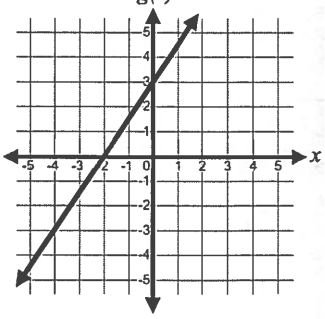
Graph B



Graph C

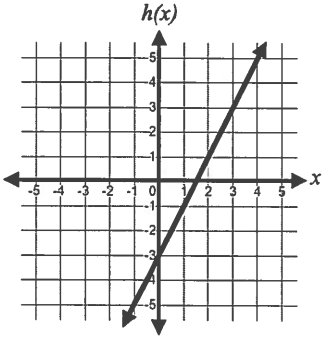


Graph D

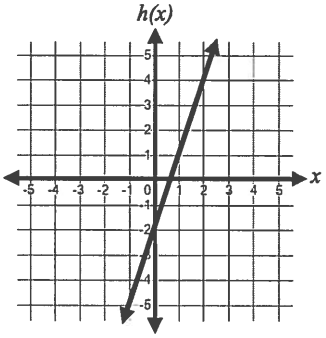


3. The function $h(x) = -3x + 2$ could be represented by which graph? **3.** C

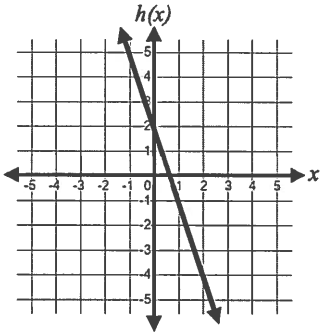
Graph A



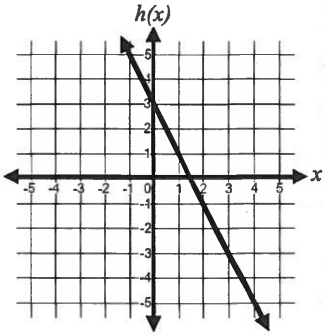
Graph B



Graph C



Graph D



Quick Check – Form A

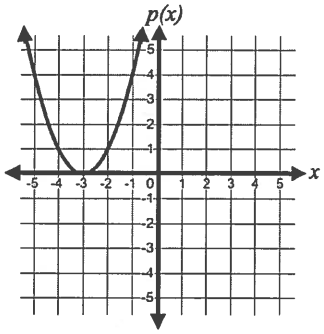
Readiness Standard 5 - A.CED.2 (Continued)

Name Key Date

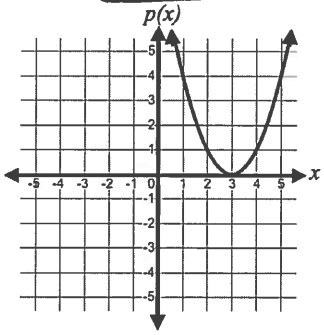
Learning Target: I will identify the graph of linear and non-linear functions. (Work time: 5 minutes)

4. The function $p(x) = (x-3)^2$ could be represented by which graph? 4. B

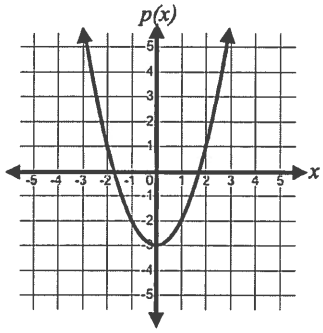
Graph A



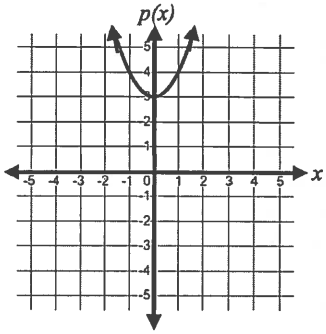
Graph B



Graph C

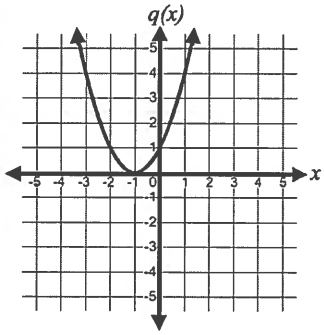


Graph D

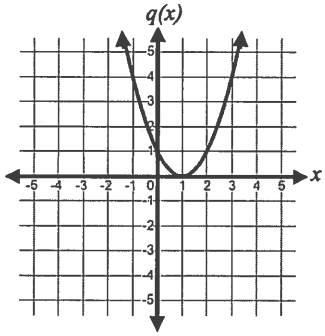


5. The function $q(x) = x^2 - 1$ could be represented by which graph? 5. C

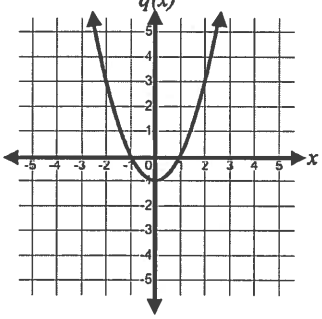
Graph A



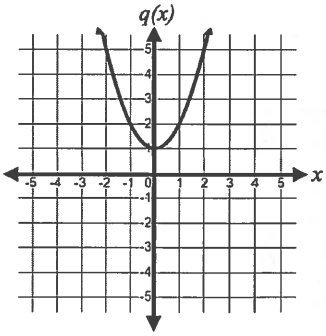
Graph B



Graph C

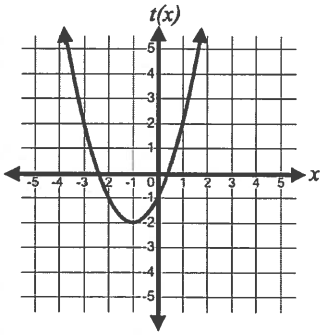


Graph D

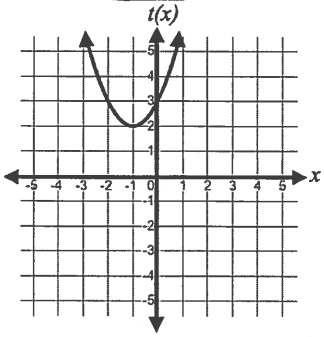


6. The function $t(x) = (x+1)^2 + 2$ could be represented by which graph? 6. B

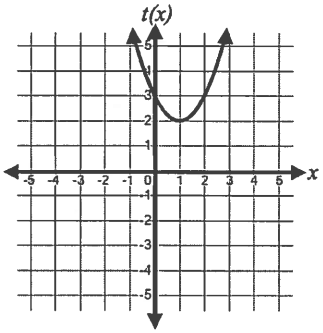
Graph A



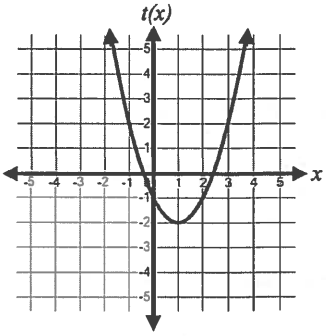
Graph B



Graph C



Graph D



Quick Check – Form B

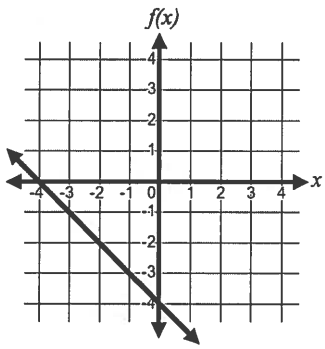
Readiness Standard 5 - A.CED.2

Name Key _____ Date _____

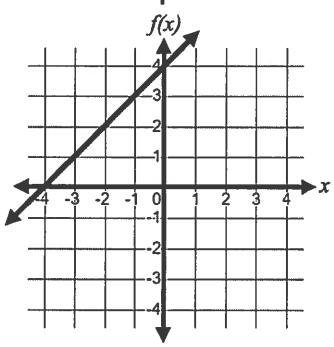
Learning Target: I will identify the graph of linear and non-linear functions. (Work time: 5 minutes)

1. The function $f(x) = -x + 4$ could be represented by which graph? 1. D

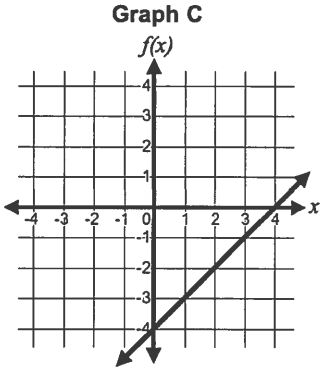
Graph A



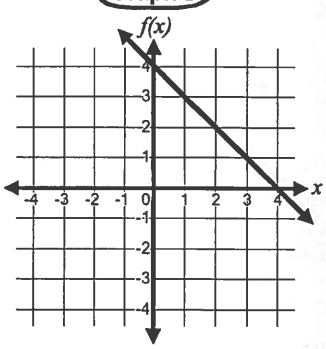
Graph B



Graph C

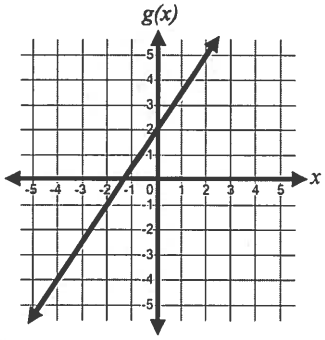


Graph D

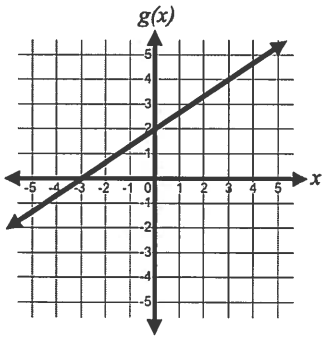


2. The function $g(x) = \frac{3}{2}x + 3$ could be represented by which graph? 2. D

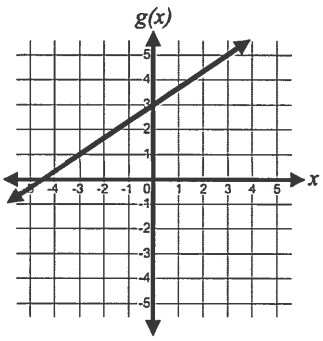
Graph A



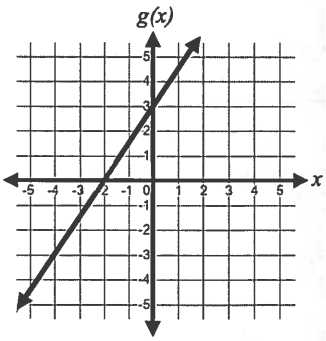
Graph B



Graph C

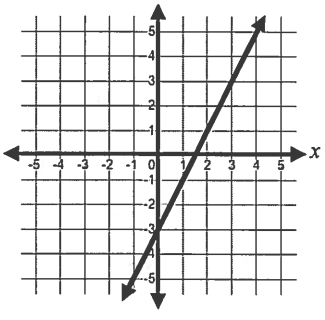


Graph D

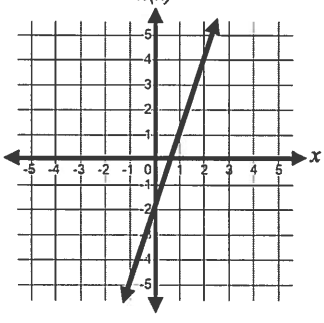


3. The function $h(x) = 3x - 2$ could be represented by which graph? 3. B

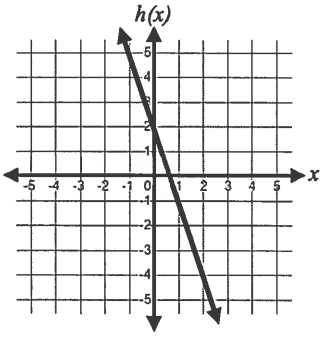
Graph A



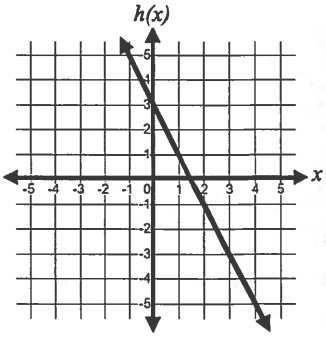
Graph B



Graph C



Graph D



Quick Check – Form B

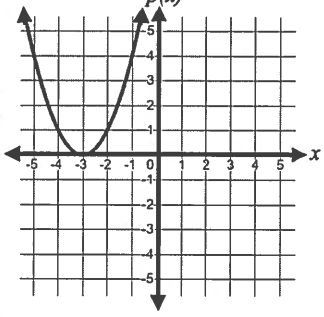
Readiness Standard 5 - A.CED.2 (Continued)

Name Key Date

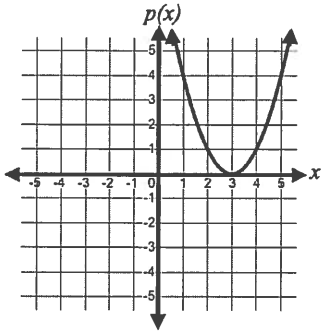
Learning Target: I will identify the graph of linear and non-linear functions. (Work time: 5 minutes)

4. The function $p(x) = (x + 3)^2$ could be represented by which graph? 4. A

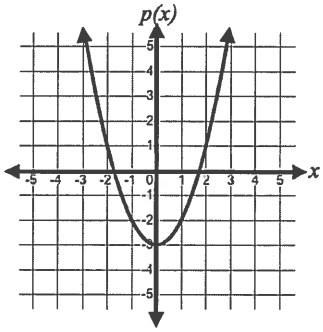
Graph A



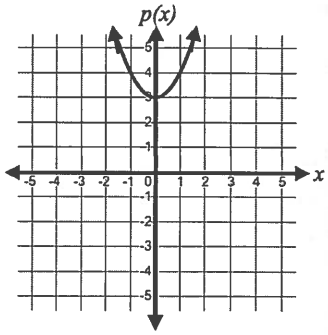
Graph B



Graph C

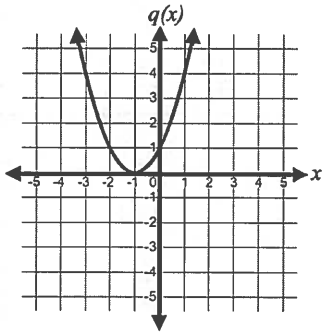


Graph D

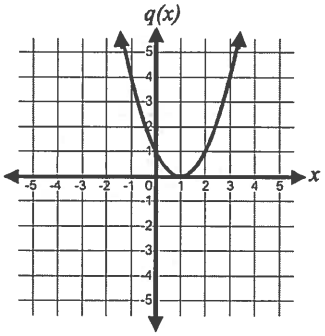


5. The function $q(x) = x^2 + 1$ could be represented by which graph? 5. D

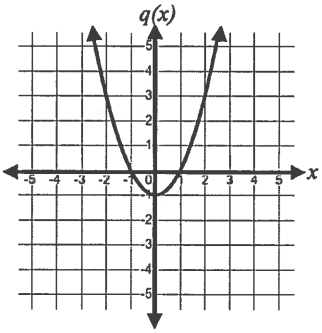
Graph A



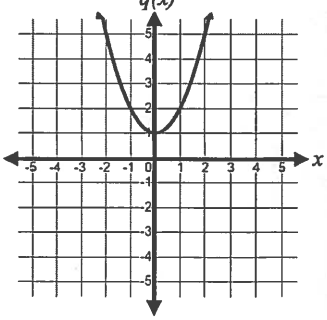
Graph B



Graph C

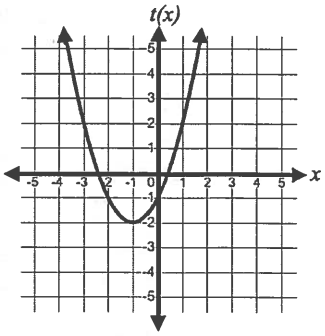


Graph D

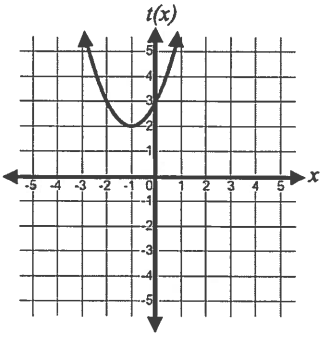


6. The function $t(x) = (x - 1)^2 - 2$ could be represented by which graph? 6. D

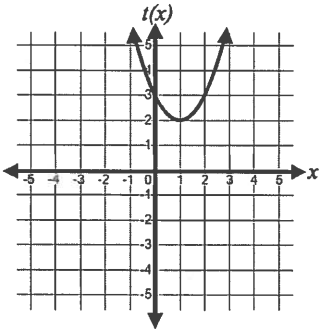
Graph A



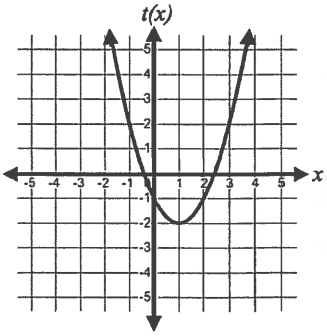
Graph B



Graph C



Graph D



Quick Check – Form C

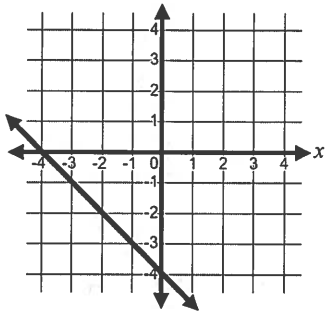
Readiness Standard 5 - A.CED.2

Name Key Date

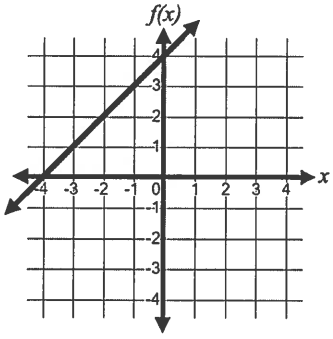
Learning Target: I will identify the graph of linear and non-linear functions. (Work time: 5 minutes)

1. The function $f(x) = x - 4$ could be represented by which graph? 1. C

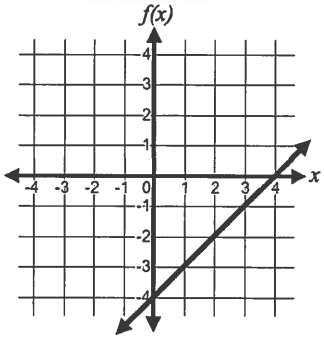
Graph A



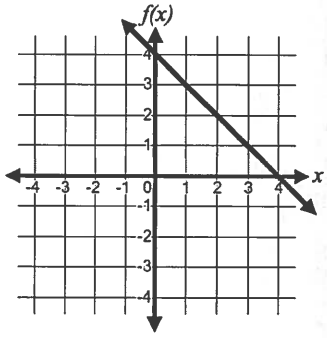
Graph B



Graph C

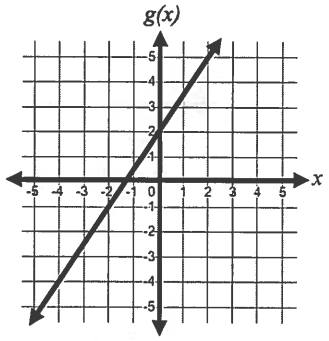


Graph D

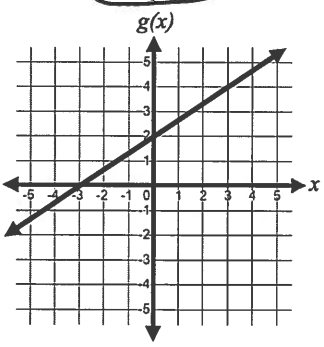


2. The function $g(x) = \frac{2}{3}x + 2$ could be represented by which graph? 2. B

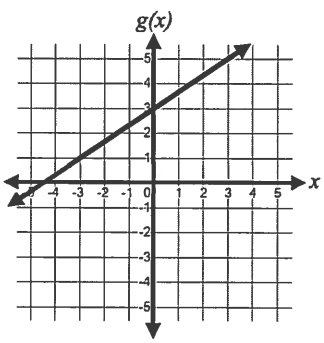
Graph A



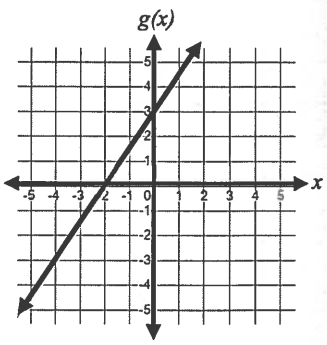
Graph B



Graph C

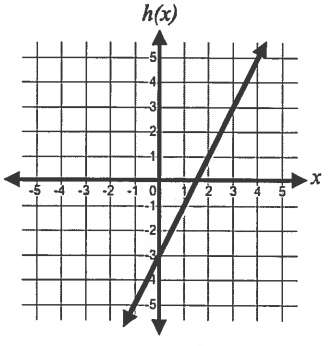


Graph D

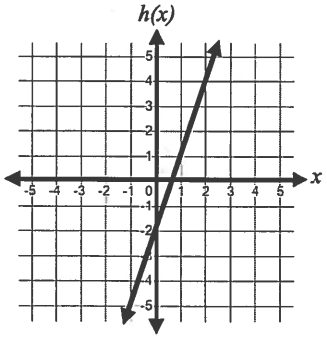


3. The function $h(x) = -2x + 3$ could be represented by which graph? 3. D

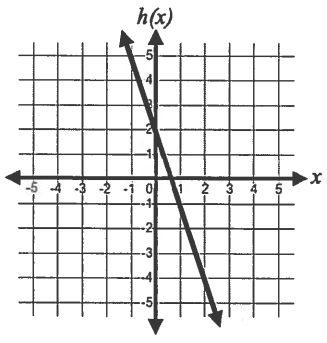
Graph A



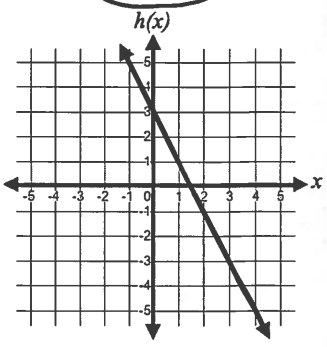
Graph B



Graph C



Graph D



Quick Check – Form C

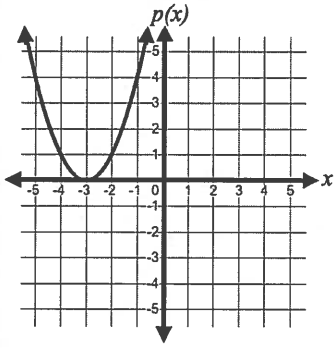
Readiness Standard 5 - A.CED.2 (Continued)

Name Key Date

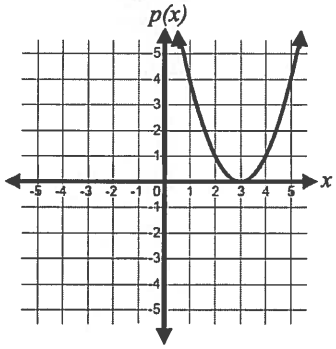
Learning Target: I will identify the graph of linear and non-linear functions. (Work time: 5 minutes)

4. The function $p(x) = x^2 - 3$ could be represented by which graph? 4. C

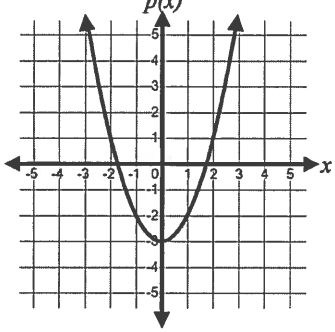
Graph A



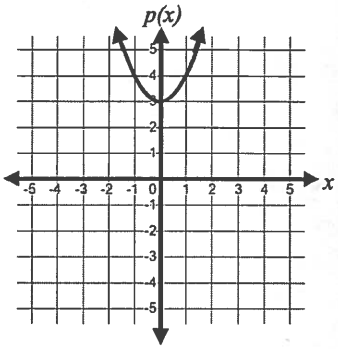
Graph B



Graph C

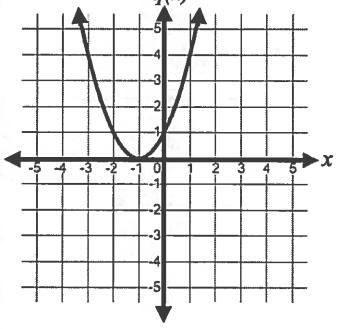


Graph D

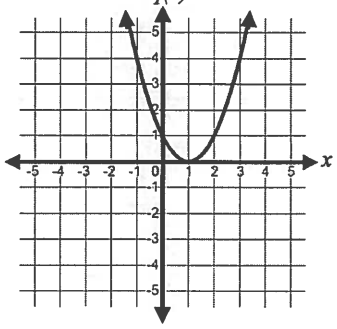


5. The function $q(x) = (x - 1)^2$ could be represented by which graph? 5. B

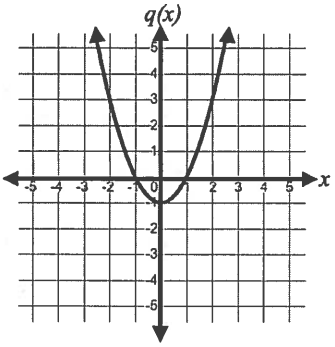
Graph A



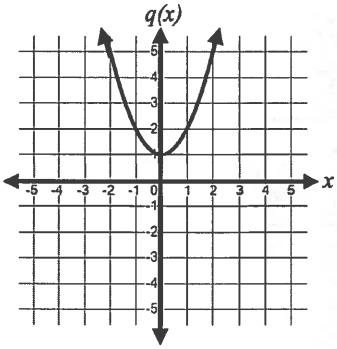
Graph B



Graph C

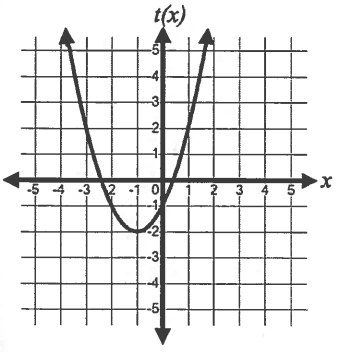


Graph D

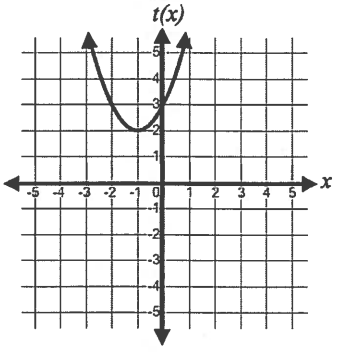


6. The function $t(x) = (x - 1)^2 + 2$ could be represented by which graph? 6. C

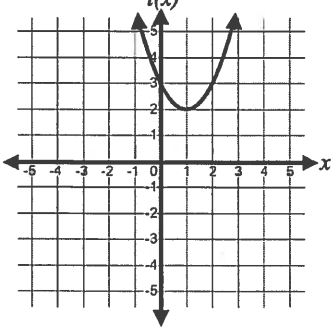
Graph A



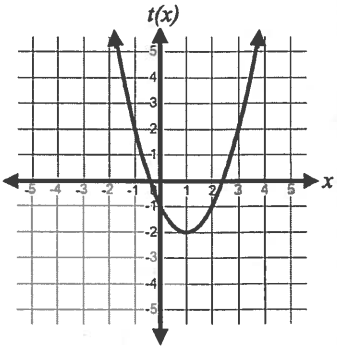
Graph B



Graph C



Graph D



Quick Check – Form D

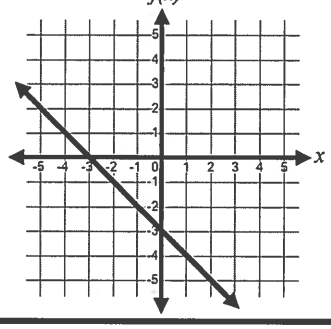
Readiness Standard 5 - A.CED.2

Name Key Date

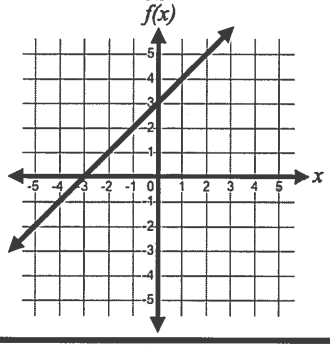
Learning Target: I will identify the graph of linear and non-linear functions. (Work time: 5 minutes)

1. The function $f(x) = -x + 3$ could be represented by which graph? 1. B

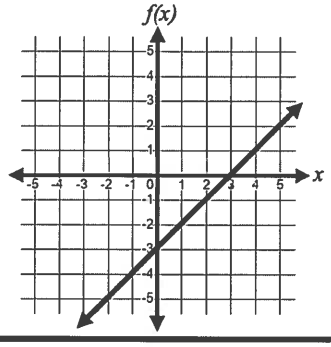
Graph A



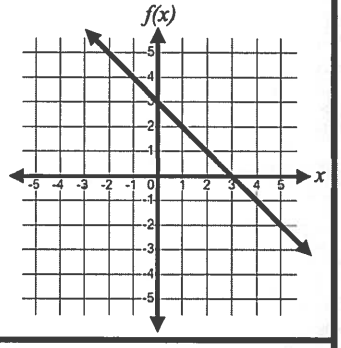
Graph B



Graph C

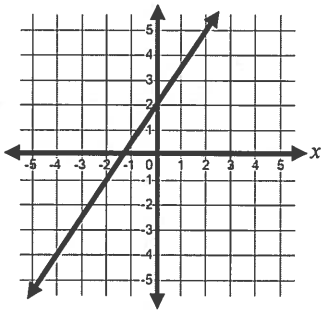


Graph D

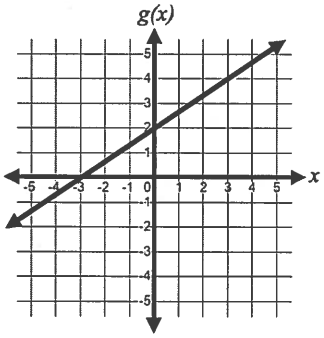


2. The function $g(x) = \frac{3}{2}x + 2$ could be represented by which graph? 2. A

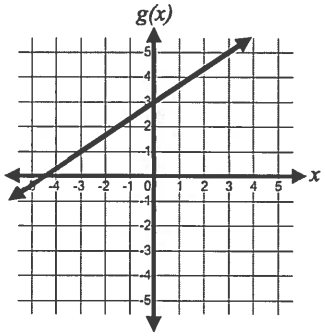
Graph A



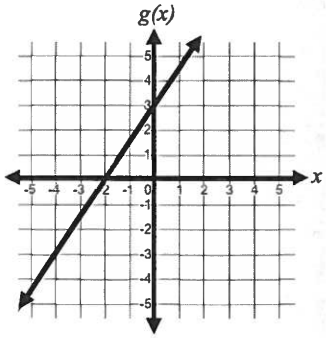
Graph B



Graph C

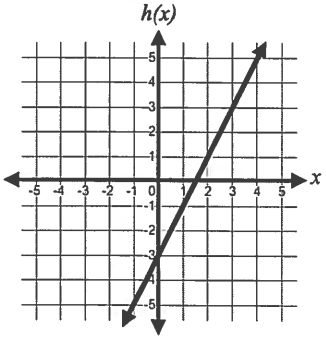


Graph D

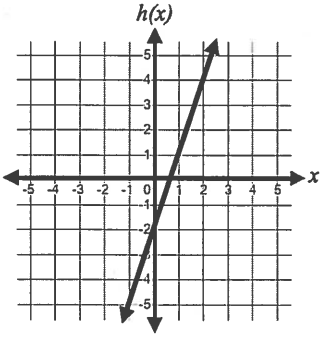


3. The function $h(x) = 2x - 3$ could be represented by which graph? 3. A

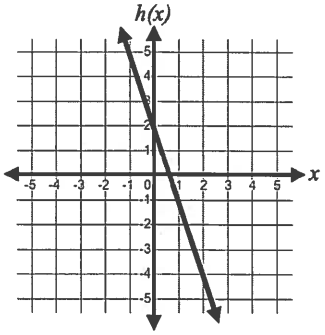
Graph A



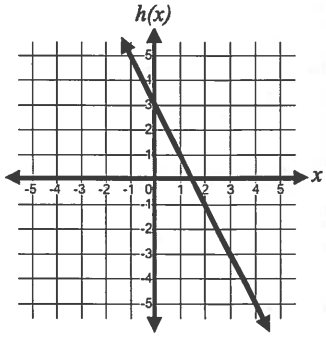
Graph B



Graph C



Graph D



Quick Check – Form D

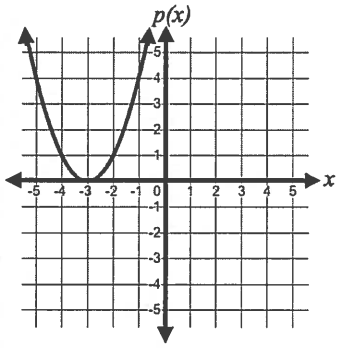
Readiness Standard 5 - A.CED.2 (Continued)

Name Key Date

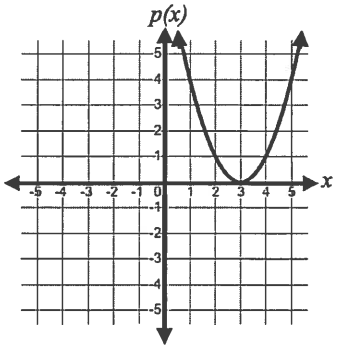
Learning Target: I will identify the graph of linear and non-linear functions. (Work time: 5 minutes)

4. The function $p(x) = x^2 + 3$ could be represented by which graph? 4. D

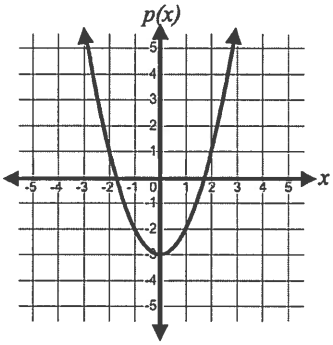
Graph A



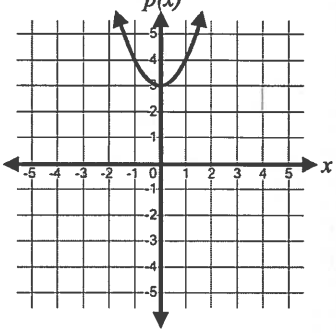
Graph B



Graph C

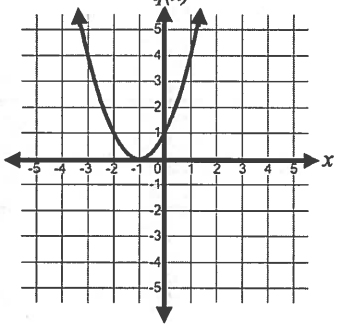


Graph D

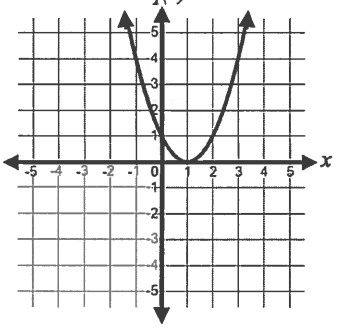


5. The function $q(x) = (x + 1)^2$ could be represented by which graph? 5. A

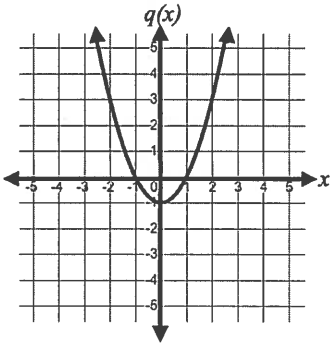
Graph A



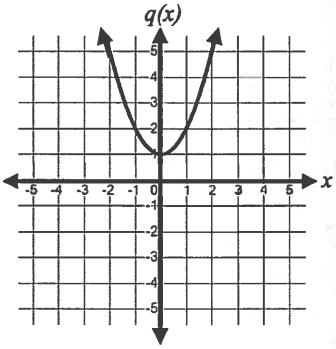
Graph B



Graph C

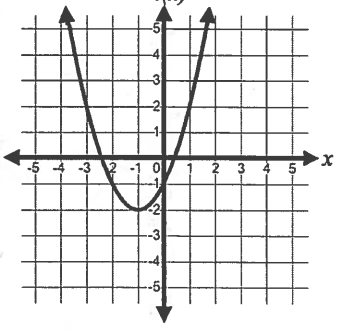


Graph D

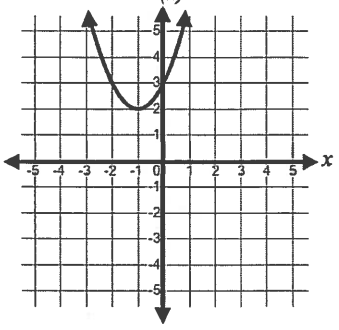


6. The function $t(x) = (x + 1)^2 - 2$ could be represented by which graph? 6. A

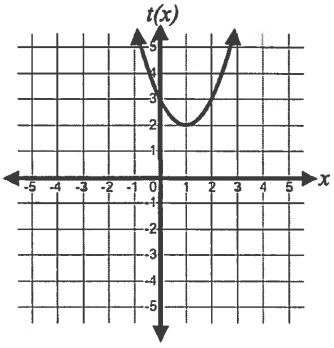
Graph A



Graph B



Graph C



Graph D