

CHAPTER

2

Chapter Test

Form A

Select the best answer.

- A person opened a bank account at the beginning of the year. She deposited the same amount once a month for 12 months. At the end of the 12 months, there was \$1,860 in the account. How much did she deposit each month?
A \$77.50
B \$155.00
C \$186.00
D \$1,860.00
- Solve $4x + 17 = 8x + 5$.
A $x = 3$
B $x = 5.5$
- Solve $11x - 4 < 5x + 14$.
A $x < \frac{1}{3}$
B $x > \frac{1}{3}$
C $x < 3$
D $x > 3$
- Solve $\frac{4}{5} = \frac{x}{35}$.
A $x = 28$
B $x = 30$
- Over the course of a 17-game season, a professional football team scored 408 points. About how many points per game did they score?
A 0.04
B 2.4
C 24
D 6,936
- The right triangles ABC and DEF are similar. The hypotenuse of $\triangle ABC$ measures 12 cm and the hypotenuse of $\triangle DEF$ measures 24 cm. If one of the legs of $\triangle ABC$ measures 9 cm, what does the corresponding leg of $\triangle DEF$ measure?
A 4.5 cm
B 18 cm
- A line passes through $(2, 8)$ and $(4, 3)$. What is the slope of the line?
A $-\frac{2}{5}$
B $\frac{2}{5}$
C $-\frac{5}{2}$
D $\frac{5}{2}$
- Which set of points could represent a linear function?
A $\{(1, 2), (2, 4), (3, 6), (4, 8)\}$
B $\{(1, 2), (2, 4), (3, 8), (4, 16)\}$
- What is $x + 2y = 10$ in slope-intercept form?
A $x = -2y - 10$
B $y = -\frac{1}{2}x + 5$
C $2y = -x + 10$
D $2y = 10 - x$
- What is the y -intercept of the line $2x + 3y = 12$?
A $y = 4$
B $y = 6$

CHAPTER **2** **Chapter Test**
Form A continued

11. Which is the equation of the line that contains the points in the table?

x	1	3	6
y	3	7	13

- A** $y = x + 2$
B $y = 2x + 1$
C $y = 3x - 2$
D $y = 4x - 1$
12. Which is the equation of the line parallel to $y = 5x + 7$ with a y -intercept of 3?
A $y = 3x + 7$
B $y = 5x + 3$
13. Grapefruit at a farm stand costs \$3 per pound and oranges cost \$4 per pound. If a shopper buys x pounds of grapefruit and y pounds of oranges, which equation represents the pounds of grapefruit and oranges that can be bought for \$24?
A $x + y = 24$
B $12xy = 24$
C $4x + 3y = 24$
D $3x + 4y = 24$
14. If $g(x)$ is a vertical translation 5 units down of $f(x) = 4x + 3$, what is the rule for $g(x)$?
A $g(x) = -x + 3$
B $g(x) = 4x - 2$
15. If $g(x)$ is a vertical stretch by a factor of 3 of $f(x) = 3x + 1$, what is the rule for $g(x)$?
A $g(x) = 3x + 3$
B $g(x) = 3x + 9$
C $g(x) = 9x + 1$
D $g(x) = 9x + 3$

16. Which best expresses the correlation among the data points below?

x	1	3	4	5	6
y	14	10	11	9	4

- A** positive
B negative
17. Solve $-5x \leq 10$ OR $3x + 2 < 14$.
A no solution
B $\{x \mid x < 4\}$
C $\{x \mid -2 \leq x < 4\}$
D all real numbers
18. Solve $|x| - 8 = 12$.
A $x = -4$ or $x = 20$
B $x = -20$ or $x = 20$
19. Solve $|2x - 3| \leq 13$.
A $\{x \mid x \leq 8\}$
B $\{x \mid x \geq -5\}$
C $\{x \mid -5 \leq x \leq 8\}$
D $\{x \mid x \leq -5$ or $x \geq 8\}$
20. What is the vertex of $f(x) = |x| + 6$?
A (0, 6)
B (-6, 0)
21. If $g(x)$ is a reflection across the x -axis of $f(x) = |x| + 3$, what is the rule for $g(x)$?
A $g(x) = |x| - 3$
B $g(x) = -|x| + 3$
C $g(x) = 3 - |x|$
D $g(x) = -|x| - 3$

CHAPTER

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Chapter Test

Form B

Select the best answer.

- A person had \$1,350 in her bank account at the beginning of the year. She deposited the same amount once a month for 12 months. At the end of the 12 months there was \$6,150 in the account. How much did she deposit each month?

A \$4.55 C \$512.50
B \$400.00 D \$4,800.00
- Solve $5x + 7 = 3 + 8x + 4 - 3x$.

F $x = 0$
G $x = 1$
H all real numbers
J no solution
- Solve $11x - 6 < 6x + 9$.

A $x < \frac{3}{5}$ C $x < 3$
B $x > \frac{3}{5}$ D $x > 3$
- Solve $\frac{20}{5} = \frac{28}{x}$.

F $x = 7$ H $x = 28$
G $x = 13$ J $x = 112$
- Over the course of a 162-game season, a professional baseball team scored 729 runs. About how many runs per game did they score?

A 0.006 C 4.5
B 0.2 D 567
- The right triangles ABC and DEF are similar. The hypotenuse of $\triangle ABC$ measures 6 cm, and the hypotenuse of $\triangle DEF$ measures 30 cm. If one of the legs of $\triangle ABC$ measures 4 cm, what does the corresponding leg of $\triangle DEF$ measure?

F 0.80 cm H 20 cm
G 1.25 cm J 45 cm
- Which set of points could represent a linear function?

A $\{(1, 6), (3, 10), (5, 11), (7, 14)\}$
B $\{(1, 6), (3, 10), (5, 14), (1, 18)\}$
C $\{(1, 6), (3, 10), (5, 14), (7, 18)\}$
D $\{(1, 6), (5, 10), (6, 14), (10, 18)\}$
- A line has slope $\frac{3}{2}$ and passes through $(1, 3)$. Which of these points is also on the line?

F $(2, 3)$ H $(4, 5)$
G $(3, 6)$ J $(5, 5)$
- What is the y -intercept of the line $4x - 7y = 28$?

A $y = -4$ C $y = 4$
B $y = \frac{4}{7}$ D $y = 7$
- What is $6x + 2y = 10$ in slope-intercept form?

F $y = -3x + 5$
G $2y = -6x + 10$
H $x = -\frac{1}{3}y + \frac{5}{3}$
J $y = 3x + 5$
- Which is the equation of the line that contains the points in the table?

x	-2	1	4
y	11	3.5	-4

A $y = -\frac{2}{5}x + \frac{51}{5}$
B $y = -\frac{5}{2}x + \frac{51}{2}$
C $y = -\frac{5}{2}x + 6$
D $y = -\frac{5}{2}x + 3.5$

CHAPTER
2 **Chapter Test**
Form B continued

12. Which is the equation of the line parallel to $y = 5x + 7$ and passing through $(3, -8)$?
- F $y = 5x + 43$ H $y = -\frac{1}{5}x + \frac{7}{5}$
 G $y = -\frac{1}{5}x + \frac{37}{5}$ J $y = 5x - 23$
13. Grapefruit at a farm stand costs \$3 per pound and oranges cost \$4 per pound. If a shopper buys 2 pounds of grapefruit, how many pounds of oranges can the shopper buy and spend less than \$24?
- A between 0 and 4.5 pounds
 B greater than 4.5 pounds
 C between 0 and $5\frac{1}{3}$ pounds
 D greater than $5\frac{1}{3}$ pounds
14. If $g(x)$ is a horizontal translation 2 units right of $f(x) = 4x + 7$, what is the rule for $g(x)$?
- F $g(x) = 4x - 1$
 G $g(x) = 4x + 5$
 H $g(x) = 4x + 9$
 J $g(x) = 4x + 15$
15. If $g(x)$ is a vertical compression by a factor of $\frac{1}{4}$ followed by a translation of 6 units down of $f(x) = -8x + 12$, what is the rule for $g(x)$?
- A $g(x) = -2x - 3$
 B $g(x) = -2x + 9$
 C $g(x) = -32x + 6$
 D $g(x) = -32x + 42$
16. Which equation best fits this data set?
- | | | | | | |
|----------|-----|-----|-----|----|----|
| x | 1 | 3 | 4 | 5 | 6 |
| y | 4.5 | 6.0 | 9.0 | 12 | 12 |
- F $y = \frac{3}{4}x + \frac{15}{4}$ H $y = \frac{3}{2}x + 3$
 G $y = \frac{3}{2}x + 1$ J $y = \frac{15}{8}x + \frac{21}{8}$

17. Solve $-5x \leq 10$ AND $3x + 2 < 14$.
- A $\{x \mid x \leq -2\}$ C $\{x \mid -2 \leq x < 4\}$
 B $\{x \mid x < 4\}$ D all real numbers
18. Solve $|x - 8| = 12$.
- F $x = -4$
 G $x = 20$
 H $x = 20$ or $x = -4$
 J $\{x \mid -4 \leq x < 20\}$
19. Solve $\frac{|4x - 2|}{3} \leq 7$.
- A $\{x \mid x \leq \frac{23}{4}\}$
 B $\{x \mid x \leq -\frac{19}{4}$ or $x \geq \frac{23}{4}\}$
 C $\{x \mid \frac{23}{4} \leq x \leq -\frac{19}{4}\}$
 D $\{x \mid -\frac{19}{4} \leq x \leq \frac{23}{4}\}$
20. Which function has a vertex at $(-4, 6)$?
- F $f(x) = |x - 4| + 6$
 G $f(x) = |x + 4| - 6$
 H $f(x) = |x + 4| + 6$
 J $f(x) = |x + 6| + 4$
21. If $g(x)$ is a vertical stretch by a factor of 4 of $f(x) = |x| + 3$, what is the rule for $g(x)$?
- A $g(x) = \frac{1}{4}|x| + \frac{3}{4}$
 B $g(x) = \frac{1}{4}|x| + 3$
 C $g(x) = 4|x| + 3$
 D $g(x) = 4|x| + 12$

CHAPTER
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Chapter Test
Form C

Select the best answer.

- A person had \$1,350 in her bank account at the beginning of the year. She makes a deposit once a month for 12 months. Each month the deposit is \$10 more than the month before. At the end of the 12 months, there was \$5550 in the account. How much was the last of the 12 monthly deposits?

A \$295.00 **C** \$395.00
B \$350.00 **D** \$405.00
- Solve $5(x + 7) - 2(2x - 1) = 4(3 - 3x)$.

F $x = -\frac{25}{13}$ **H** $x = \frac{21}{11}$
G $x = -\frac{21}{13}$ **J** $x = -\frac{25}{11}$
- Solve $2(5 - 3x) < 3(5 - 2x)$.

A $x > \frac{5}{12}$
B $x < \frac{5}{12}$
C all real numbers
D no solution
- Solve $\frac{14}{x-1} = \frac{22}{x+1}$.

F $x = 3.5$ **H** $x = 5.5$
G $x = 4.5$ **J** $x = 9$
- A clock loses one hour over the course of a 365-day year. About how many seconds per day does the clock lose?

A 1 **C** 10
B 5 **D** 60
- The right triangles ABC and DEF are similar. The hypotenuse of $\triangle ABC$ measures 15 cm, and the hypotenuse of $\triangle DEF$ measures 25 cm. If the *shorter* leg of $\triangle ABC$ measures 9 cm, what does the *longer* leg of $\triangle DEF$ measure?

F 16 cm **H** 20 cm
G 18 cm **J** 21 cm

- If the set of points $\{(1, a), (3, 10), (b, 12), (7, 16)\}$ represents a linear function, what is the sum of a and b ?

A $11.\bar{3}$ **C** $12.\bar{6}$
B 12 **D** $15.\bar{3}$
- A line passing through $(1, 1)$ also passes through (a, b) and (b, a) . Which of these points could be (a, b) ?

F $(-2, 0)$ **H** $(0, 0)$
G $(-1, -1)$ **J** $(0, 2)$
- If the y -intercept of a line is 6, and the slope of the line is $-\frac{4}{5}$, what is the x -intercept?

A -7.5 **C** 4.8
B -4.8 **D** 7.5
- Which of the following is NOT the same line as $y = \frac{2}{3}x + 2$?

F $y + 2 = \frac{2}{3}(x + 6)$
G $y + 1 = \frac{2}{3}(x + 3)$
H $y - 4 = \frac{2}{3}(x - 3)$
J $y - 6 = \frac{2}{3}(x - 6)$
- Which is the equation of the line that contains the points in the table?

x	-2	1	4
y	11	3.5	-4

- A** $y + 11 = -\frac{5}{2}x$
B $y - 4 = -\frac{5}{2}(x - 4)$
C $y + 4 = -\frac{5}{2}(x - 4)$
D $-\frac{5}{2}(y + 4) = x - 4$

CHAPTER 2 **Chapter Test**
Form C continued

12. Which is the equation of the line that is perpendicular to the line $x = 4.5$ and passes through the point $(3, 2)$?
F $y = 2$ **H** $x = 3$
G $y = 4.5$ **J** $x = 4.5$
13. Grapefruit at a farm stand costs \$3 per pound and oranges cost \$4 per pound. If a shopper wants to buy at least as many pounds of oranges as grapefruit, how many pounds of oranges can the shopper buy and spend less than \$24?
A between 0 and $\frac{24}{7}$ pounds
B between 0 and 6 pounds
C between 0 and 8 pounds
D between 0 and 24 pounds
14. If $g(x)$ is a vertical compression by a factor of $\frac{1}{4}$, followed by a translation of 6 units down, followed by a reflection across the x -axis of $f(x) = -8x + 12$, what is the rule for $g(x)$?
F $g(x) = -2x - 3$ **H** $g(x) = 2x - 6$
G $g(x) = -2x - 6$ **J** $g(x) = 2x + 3$
15. If $g(x)$ is a reflection across the y -axis, followed by a translation 3 units left, followed by a horizontal stretch by a factor of 3 of $f(x) = 6x + 1$, what is the rule for $g(x)$?
A $g(x) = -18x - 17$
B $g(x) = -2x - 17$
C $g(x) = -2x + 17$
D $g(x) = 18x - 17$
16. Which equation best fits this data set?

x	1	3	5	8	13
y	12	9	4	3	0

- F** $y = 10 - x$ **H** $y = 8 - \frac{2}{3}x$
G $y = 12 - x$ **J** $y = 15 - \frac{4}{3}x$

17. Solve $-5x > 10 + x$ AND $3x + 2 < 14 - x$.
A no solution **C** $\{x \mid x < 3\}$
B $\{x \mid x < -\frac{5}{3}\}$ **D** all real numbers
18. Solve $-\frac{|8 - 2x|}{3} = 12$.
F no solution **H** $x = 22$
G $x = -14$ **J** $x = -14$ or $x = 22$
19. Solve $|4x| \leq 7 + x$.
A $\{x \mid -\frac{7}{3} \leq x \leq \frac{7}{3}\}$
B $\{x \mid -\frac{7}{3} \leq x \leq 8\}$
C $\{x \mid -\frac{7}{3} \leq x \leq \frac{3}{7}\}$
D $\{x \mid \frac{28}{5} \leq x \leq \frac{28}{3}\}$
20. If $f(x)$ has a vertex at (a, b) , which function has a vertex at $(-a, 2b)$?
F $g(x)$, a reflection of $f(x)$ over the x -axis followed by a vertical stretch by a factor of 2
G $h(x)$, a reflection of $f(x)$ over the y -axis followed by a vertical stretch by a factor of 2
H $j(x)$, a reflection of $f(x)$ over the x -axis followed by a horizontal stretch by a factor of 2
J $k(x)$, a reflection of $f(x)$ over the y -axis followed by a horizontal stretch by a factor of 2
21. If $g(x)$ is a vertical stretch by a factor of 4 of $f(x) = |x - 2| + 3$, what is the rule for $g(x)$?
A $g(x) = 4|x - 8| + 3$
B $g(x) = 4|x - 2| + 3$
C $g(x) = 4|x - 8| + 12$
D $g(x) = 4|x - 2| + 12$

CHAPTER
2 **Chapter Test**
Form A

Solve.

1. A motorist hopes to make a 460-mile trip in 10 hours. After averaging 50 miles per hour for the first 6 hours, how many miles per hour must she average for the remaining 4 hours in order to meet her goal?

2. $3(2x + 4) = 2(4x - 1)$

3. $8x - 12 > 3x + 6$

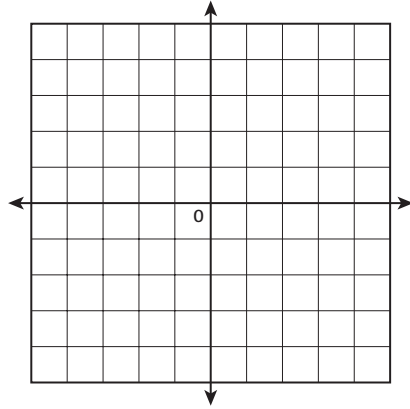
4. $\frac{x - 1}{5} = \frac{2x + 2}{15}$

5. 18% of the seniors at Jefferson High School take the Shakespeare elective. If there are 350 seniors at Jefferson High School, how many take the Shakespeare elective?

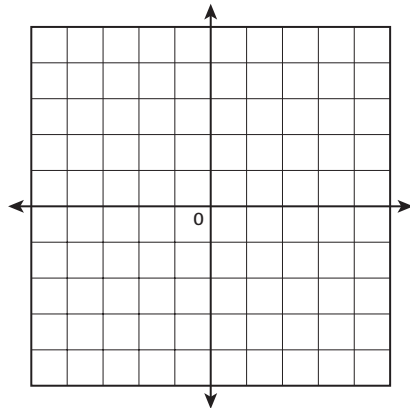
6. The right triangles ABC and DEF are similar. The hypotenuse of $\triangle ABC$ measures 4 cm, and the hypotenuse of $\triangle DEF$ measures 16 cm. If one of the legs of $\triangle ABC$ measures 5 cm, what does the corresponding leg of $\triangle DEF$ measure?

7. The set of points $\{(1, 2), (2, 4), (3, 6), (4, a)\}$ represents a linear function. Solve for a .

8. Find the intercepts and graph $4x + 6y = 12$.



9. Write $2y - 4x = 12$ in slope-intercept form and graph.



Write the equation of the line in slope-intercept form.

10. A line that passes through $(0, 4)$ and $(2, 9)$

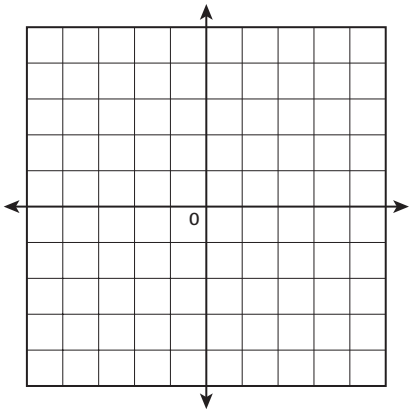
11. A line that contains the points

x	1	3	6
y	8	14	23

CHAPTER
2 **Chapter Test**
Form A continued

12. A line parallel to $y = -2x + 3$ that passes through $(3, 4)$

13. Apples cost \$0.60 each. Pears cost \$0.80 each. If you have \$10, how many of each type of fruit can you buy? Show your answer in an inequality graph. If you need to buy 9 apples, what is the greatest number of pears that you could buy with the remaining money?

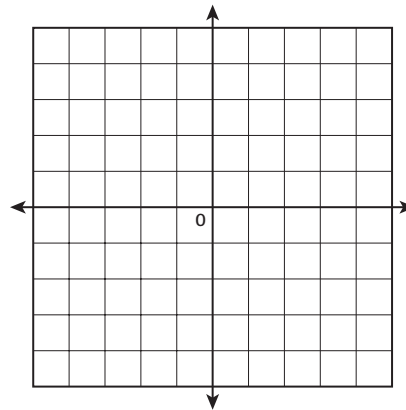


14. Let $g(x)$ be a vertical translation up 6 units of $f(x) = 3x - 4$. Write the rule for $g(x)$.

15. Let $g(x)$ be a vertical stretch by a factor of 4 of $f(x) = 3x - 2$. Write the rule for $g(x)$.

16. Make a scatter plot for the data in the table below, identify the correlation, and then sketch a line of best fit.

x	5	9	12	15	20
y	21	18	13	7	5



17. $2x - 3 < 13$ AND $3x - 8 > 10$

18. $|4x - 6| = 22$

19. $|2x + 5| > 11$

20. Let $g(x)$ be a reflection over the y -axis of $f(x) = |x - 4|$. Write the rule for $g(x)$.

21. Let $g(x)$ be a horizontal stretch by a factor of 2 of $f(x) = |x| + 1$. Write the rule for $g(x)$.

CHAPTER
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Chapter Test
Form B

Solve.

1. A motorist hopes to make a 420-mile trip in 8 hours. After averaging 57 miles per hour for the first 5 hours, how many miles per hour must she average for the remaining 3 hours in order to meet her goal?

2. $3(2x - 5) - 2(x - 4) = 3x - 1$

3. $4(2x - 3) > 3x + 6$

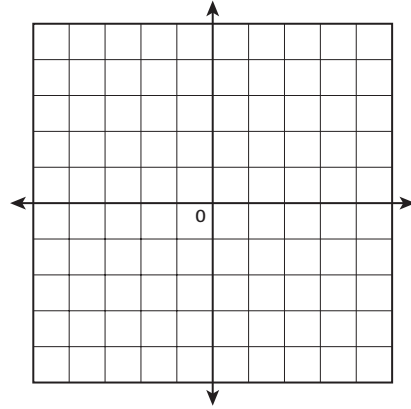
4. $\frac{5}{x - 2} = \frac{8}{x + 2}$

5. 18% of the seniors at Jefferson High School take the Shakespeare elective. If 63 seniors take the Shakespeare elective, how many seniors are there?

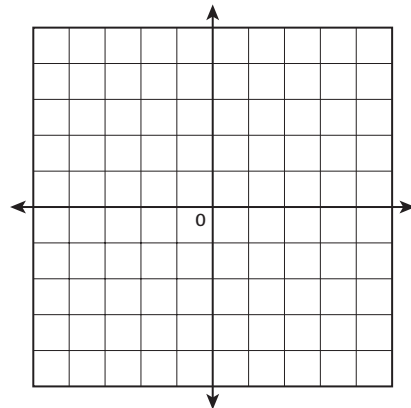
6. The right triangles ABC and DEF are similar. The hypotenuse of $\triangle ABC$ measures 7 cm, and the hypotenuse of $\triangle DEF$ measures 35 cm. If one of the legs of $\triangle ABC$ measures 6 cm, what does the corresponding leg of $\triangle DEF$ measure?

7. The set of points $\{(1, 2), (a, 4), (3, 6), (4, b)\}$ represents a linear function. Solve for a and b .

8. Find the intercepts and graph $4x - 6y = 12$.



9. Write $3x + 5y = 10$ in slope-intercept form and graph.



Write the equation of the line in slope-intercept form.

10. A line that passes through $(-2, 4)$ and $(6, 0)$

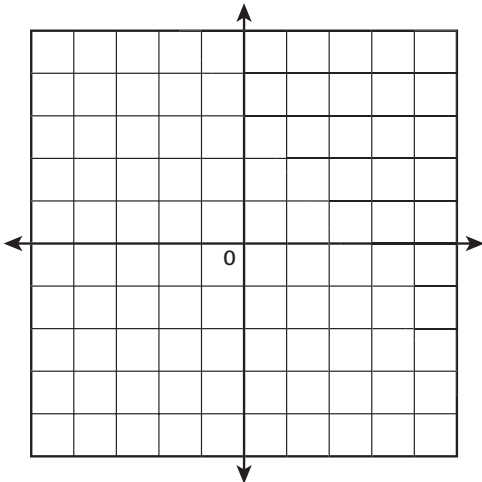
11. A line that contains the points

x	-3	3	5
y	8	-10	-16

CHAPTER
2 **Chapter Test**
Form B continued

12. A line parallel to $2x - y = 8$ that passes through $(3, 4)$

13. Tickets to the high school play cost \$5 for adults and \$3 for students. Write an equation that states that total ticket sales will be more than \$1,000 and graph the inequality.

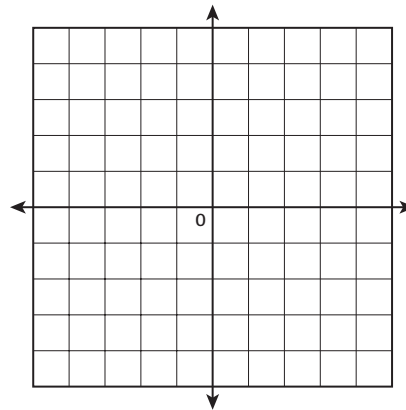


14. Let $g(x)$ be a vertical translation up 2 units followed by a reflection over the y -axis of $f(x) = 3x - 4$. Write the rule for $g(x)$.

15. Let $g(x)$ be a horizontal compression by a factor of $\frac{1}{3}$ of $f(x) = \frac{3}{4}x - 2$. Write the rule for $g(x)$.

16. Make a scatter plot of the data in the table below, identify the correlation, and then sketch a line of best fit and find its equation.

x	12	15	25	19
y	11	17	23	19



Solve.

17. $2x - 3 < 13$ AND $3x - 8 > 12$

18. $\frac{|3x - 4|}{2} = 10$

19. $\frac{|2x + 5|}{3} + 1 > 10$

20. Let $g(x)$ be a vertical translation 2 units down, followed by a reflection over the x -axis of $f(x) = |x - 4|$. Write the rule for $g(x)$.

21. Let $g(x)$ be a vertical stretch by a factor of 2 of $f(x) = 2|x - 3| + 1$. Write the rule for $g(x)$.

CHAPTER
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Chapter Test
Form C

Solve.

1. A motorist hopes to make a 526-mile trip in 9 hours. After averaging 57 miles per hour for the first 2 hours and 62 miles per hour for the next 3 hours, how many miles per hour must she average for the remaining 4 hours in order to meet her goal?

2. $1 - (3 - 2(x - 3)) = 2 - (2x - 1)$

3. $\frac{3}{4}(2x - 3) > 2 - x$

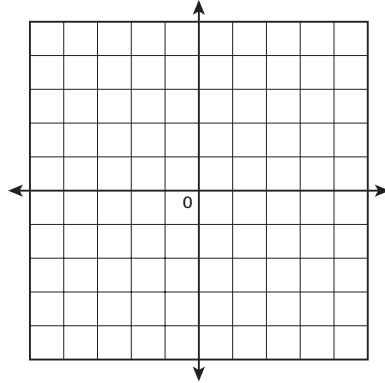
4. $\frac{2x - 1}{x - 2} = \frac{3}{4}$

5. If 53% of the students at Jefferson High School are girls, and the girls outnumber the boys by 54, how many students are there at Jefferson High School?

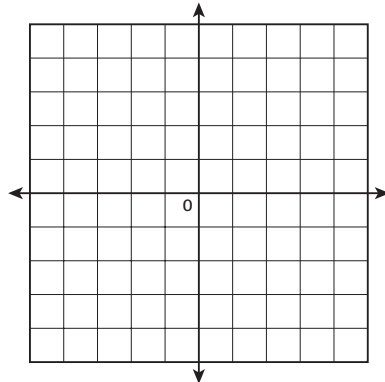
6. The right triangles ABC and DEF are similar. The hypotenuse of $\triangle ABC$ measures 39 cm and the hypotenuse of $\triangle DEF$ measures 13 cm. If the *shorter* leg of $\triangle ABC$ measures 15 cm, what does the *longer* leg of $\triangle DEF$ measure?

7. If the set of points $\{(-2, 3), (2, a), (6, 7), (b, 7.5)\}$ represents a linear function, what is the sum of a and b ?

8. Find the intercepts and graph $5x + 7y = -6$.



9. Write $\frac{2}{3}x - \frac{3}{4}y = 10$ in slope-intercept form and graph.



Write the equation of the line in slope-intercept form.

10. A line that passes through $(2, 4)$ and $(6, 1)$

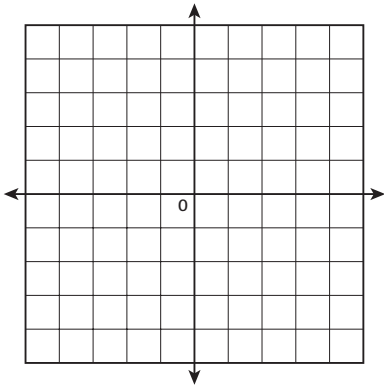
11. A line passing through $(1, 0)$ parallel to the line that contains the points in the table

x	0	0	0
y	-1	0	1

CHAPTER
2 **Chapter Test**
Form C continued

12. A line perpendicular to $2x - 3y = 8$ that passes through $(3, 4)$

13. Tickets to the high school play cost \$5 for adults and \$3 for students. Write an equation that states that total ticket sales will be more than \$2,000 and graph the inequality.

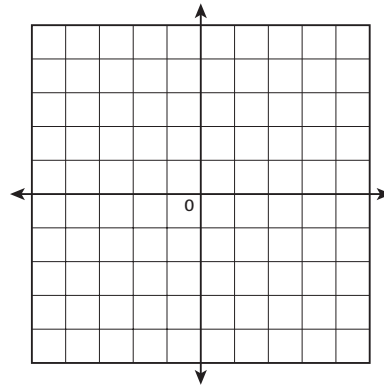


14. Let $g(x)$ be a horizontal translation 2 units to the right, followed by a reflection over the y -axis of $f(x) = 3x - 4$. Write the rule for $g(x)$.

15. Let $g(x)$ be a horizontal compression by a factor of $\frac{1}{3}$, followed by a vertical stretch by a factor of 2 of $f(x) = \frac{3}{4}x - 2$. Write the rule for $g(x)$.

16. Make a scatter plot of the data in the table below, identify the correlation, and then sketch a line of best fit and find its equation.

x	0	7	13	16
y	25	30	35	37



17. $5 - 4x < 8$ OR $8 - 3x > 10$

18. $|2x - 5| = 3x - 4$

19. $\frac{3 - x}{|x|} > 4$

20. Let $g(x)$ be a vertical translation 2 units down, followed by a reflection over the x -axis of $f(x) = 2|x - 4|$. Write the rule for $g(x)$.

21. Let $g(x)$ be a horizontal stretch by a factor of 2 of $f(x) = |2x - 3| + 1$. Write the rule for $g(x)$.

CHAPTER 2

Section Quiz: Section A

1. A
2. J
3. D
4. H
5. C
6. G
7. B
8. J
9. B
10. G
11. B
12. G
13. A

Section Quiz: Section B

1. B
2. F
3. B
4. J
5. D
6. H
7. C
8. F
9. A

Chapter Test Form A

1. B
2. A
3. C
4. A
5. C
6. B

7. C
8. A
9. B
10. A
11. B
12. B
13. D
14. B
15. D
16. B
17. D
18. B
19. C
20. A
21. D

Chapter Test Form B

1. B
2. H
3. C
4. F
5. C
6. H
7. C
8. G
9. A
10. F
11. C
12. J
13. A
14. F
15. A
16. H
17. C

Answer Key continued

- 18. H
- 19. D
- 20. H
- 21. D

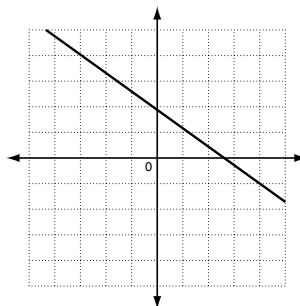
Chapter Test Form C

- 1. D
- 2. F
- 3. C
- 4. G
- 5. C
- 6. H
- 7. A
- 8. J
- 9. D
- 10. G
- 11. C
- 12. F
- 13. A
- 14. J
- 15. B
- 16. G
- 17. B
- 18. F
- 19. C
- 20. G
- 21. D

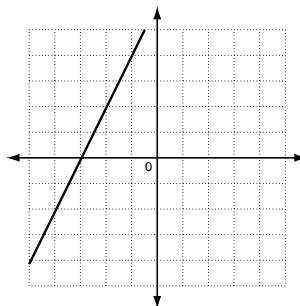
Chapter Test Form A

- 1. 40 mph
- 2. $x = 7$
- 3. $x > \frac{18}{5}$
- 4. $x = 5$
- 5. 63 students

- 6. 20 cm
- 7. $a = 8$
- 8. x-intercept 3, y-intercept 2



9. $y = 2x + 6$



10. $y = \frac{5}{2}x + 4$

11. $y = 3x + 5$

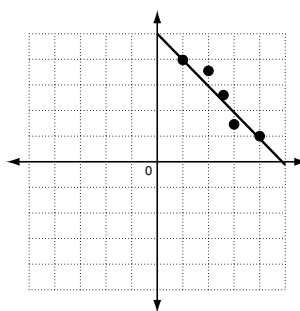
12. $y = -2x + 10$

13. 5 pears

14. $g(x) = 3x + 2$

15. $g(x) = 12x - 8$

16. negative correlation



17. $6 < x < 8$

18. $x = -4$ or $x = 7$

19. $x < -8$ or $x > 3$

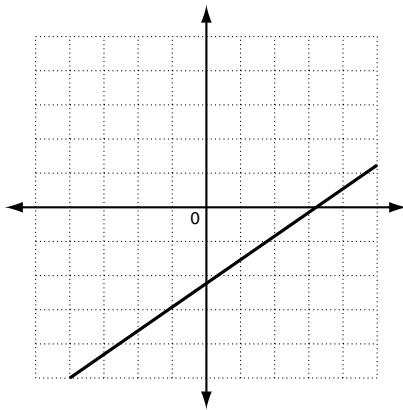
Answer Key continued

20. $g(x) = |x + 4|$

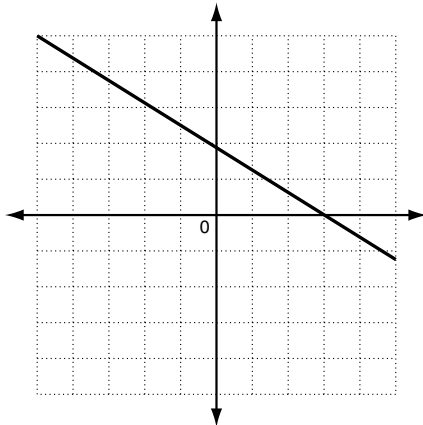
21. $g(x) = \frac{1}{2}|x| + 1$

Chapter Test Form B

1. 45 mph
2. $x = 6$
3. $x = \frac{18}{5}$
4. $x = \frac{26}{3}$
5. 350 students
6. 30 cm
7. $a = 2, b = 4$
8. x intercept 3; y-intercept -2



9. $y = -\frac{3}{5}x + 2$



10. $y = -\frac{1}{2}x + 3$

11. $y = -3x - 1$

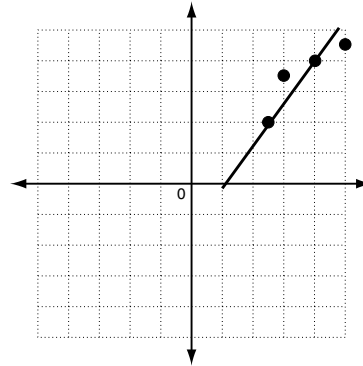
12. $y = 2x - 2$

13. $5A + 3S > 1000$

14. $g(x) = -3x - 2$

15. $g(x) = \frac{9}{4}x - 2$

16. positive correlation, $y = \frac{8}{7}x - \frac{19}{7}$



17. $\frac{20}{3} < x < 8$

18. $x = 8$ or $x = -\frac{16}{3}$

19. $x > 11$ or $x < -16$

20. $g(x) = |x - 4| + 2$

21. $g(x) = 4|x - 3| + 2$

Chapter Test Form C

1. 56.5 mph

2. $x = \frac{11}{4}$

3. $x > \frac{17}{10}$

4. $x = -\frac{2}{5}$

5. 900 students

6. 12 cm

7. 12

8. x-intercept $-\frac{6}{5}$, y-intercept $-\frac{6}{7}$

9. $y = \frac{8}{9}x - \frac{40}{3}$

10. $y = -\frac{3}{8}x + \frac{13}{4}$

11. $x = 1$

12. $y = -\frac{3}{2}x + \frac{17}{2}$

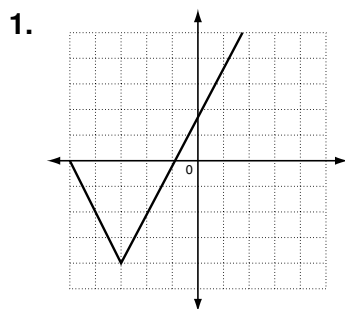
13. $5A + 3S > 2000$

14. $g(x) = -3x - 10$

Answer Key continued

15. $g(x) = \frac{9}{2}x - 4$
 16. positive correlation, $y = \frac{3}{4}x + 25$
 17. all real numbers
 18. $x = \frac{9}{5}$
 19. $-1 < x < \frac{3}{5}$
 20. $g(x) = -(2|x - 4| - 2)$
 21. $g(x) = |x - 3| + 1$

Performance Assessment



2. $f(x)$ vertically stretched by a factor of 2, translated horizontally left 3 units, then translated vertically down 4 units yields $g(x)$
 3. x-intercepts: $(-1, 0)$ and $(-5, 0)$; y-intercept $(0, 2)$
 4. region below graph should be shaded with boundary line included
 5. Answers should include discussion of choosing a point in the solution region and verifying that it satisfies the inequality.

Cumulative Test

1. B
 2. J
 3. B
 4. H
 5. D
 6. H
 7. B

8. F
 9. D
 10. F
 11. B
 12. H
 13. B
 14. G
 15. B
 16. J
 17. D
 18. H
 19. C
 20. H
 21. C
 22. F
 23. B
 24. F
 25. D
 26. H
 27. A
 28. F
 29. D
 30. F
 31. D
 32. H
 33. B
 34. H
 35. A
 36. G
 37. D
 38. H
 39. B
 40. F
 41. C
 42. J
 43. C