ALEKS® FND M010 - Review Pack #2

Basic Math / FND M010 Spring 16 – FC3_26302-Johnson T-04N40FD301 (Mr. Thomas)

Student Name/ID:

1. Write the number for *five million nine thousand* .

2. Round $2{,}824$ to the nearest hundred.

3. Estimate $1460 + 566 + 670$ by first rounding each number to the nearest hundred.

4. Estimate $4196 \div 53$ by first rounding each number so that it has only 1 nonzero digit.

5. For each number below, is it even or odd?

	Odd	Even
632	○	○
38	○	○
65	○	○
59	○	○
877	○	○

6. Write 56 as a product of prime factors.

7. Find the greatest common factor of 36 and 42.

8. Find the least common multiple of 6, 2, and 5.

9. The first three terms of an arithmetic sequence are as follows.

$17, 25, 33$

Find the next two terms of this sequence.

10. The sequence of figures shows a pattern.
If the pattern repeats, how many small squares will Figure 4 have?

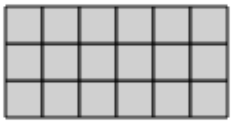


Figure 1

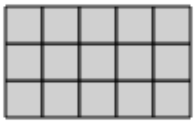


Figure 2

Figure 3

11. Evaluate the expression when $c = 6$ and $d = 33$.

$d - 5c$

12. Solve for v.

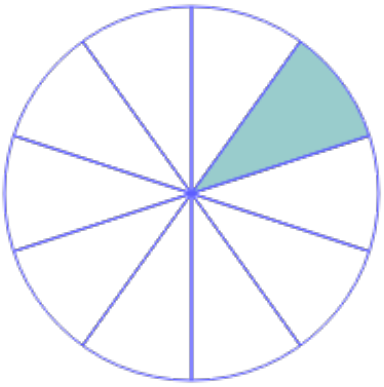
$7 = 3 + v$

13. Solve for y.

$$4y - 17 = 39$$

Simplify your answer as much as possible.

14. The circle below is cut into 10 equal slices.
What fraction of the circle is shaded?



15. The strip below is cut into 12 equal bars.

Shade $\frac{1}{6}$ of this strip.

16. What is the position of C on the number line below?

Write your answer as a fraction or mixed number.

17. Order these fractions from least to greatest.

$$\frac{3}{9}, \frac{3}{11}, \frac{3}{6}$$

18. Use $<$, $>$, or $=$ to compare the following decimals.

$0.62 \square 0.68$

$0.08 \square 0.6$

$7.50 \square 7.5$

19. There are 17 apples in a basket. 9 of these apples are green. The rest of them are red.

(a) What is the ratio of all apples in the basket to red apples?

(b) What is the ratio of red apples to green apples?

20. Keiko paid $\$19.54$ for a 3.56-pound bag of shrimp at one store. The following week, she paid $\$25.45$ for a 4.48-pound bag at another store.

Find the unit price for each bag. Then state which bag is the better buy based on the unit price.

Round your answers to the nearest cent.

Unit price for the 3.56-pound bag:

$\$$_____ per pound

Unit price for the 4.48-pound bag:

$\$$_____ per pound

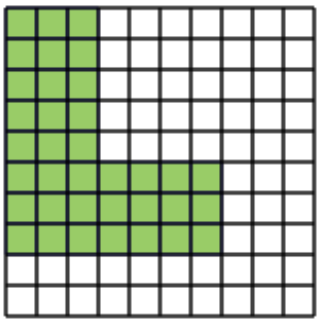
The better buy:

- The 3.56-pound bag
- The 4.48-pound bag
- Neither (They have the same unit price)

21. Elsa drove 936 miles in 13 hours.
At the same rate, how long would it take her to drive 504 miles?

22. The figure below is divided into 100 squares of equal size.

What percent of the figure is shaded?



23. Answer the following questions.

(a) 34 is what percent of 40 ? ____

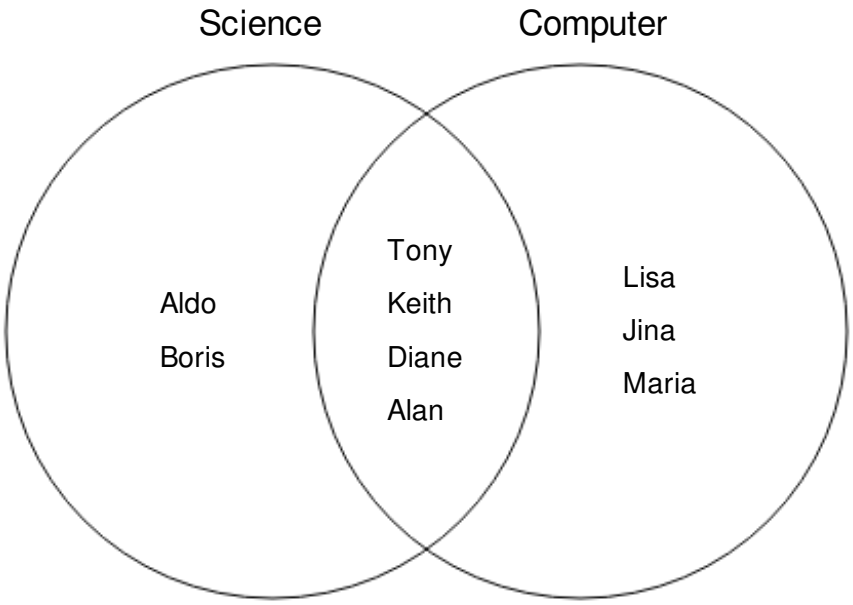
(b) 95% of 80 is what number? ____

24. The price of an item yesterday was $\$160$. Today, the price rose to $\$232$. Find the percentage increase.

25. (a) An angle measures $43°$. What is the measure of its complement?

(b) An angle measures $47°$. What is the measure of its supplement?

26. The Venn diagram shows the memberships for the Science Club and the Computer Club. Use the diagram to answer the questions below.

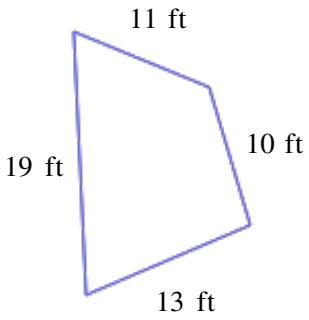


(a) How many members does the Computer Club have?

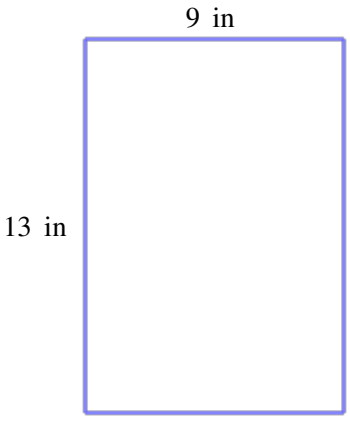
(b) How many students are in the Science Club but not in the Computer Club?

(c) How many students are members of both the Science Club and the Computer Club?

27. Find the perimeter of the following polygon. Be sure to include the correct unit in your answer.



28. Find the area of this rectangle.

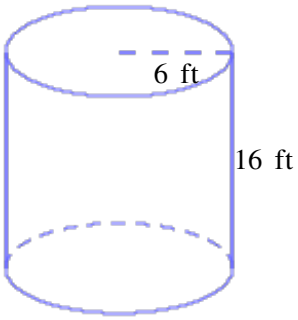


29. A circle has a diameter of 30 mm. What is its circumference?

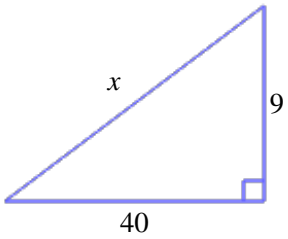
Use 3.14 for π, and do not round your answer. Be sure to include the correct unit in your answer.

30. The radius of a cylindrical water tank is 6 ft, and its height is 16 ft. What is the volume of the tank?

Use the value 3.14 for π, and round your answer to the nearest whole number.
Be sure to include the correct unit in your answer.



31. For the following right triangle, find the side length x.

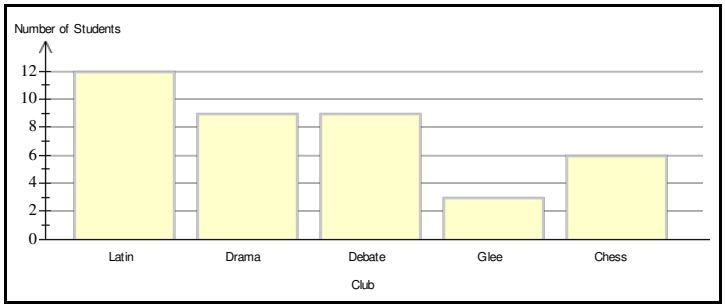


32. The tree in Elsa's backyard is 9 meters high. How high is it in centimeters?

Be sure to include the correct unit in your answer.

33. Ivanna finished a puzzle in 9 minutes. How many seconds is this?

34. A local school has 5 clubs. The number of students in each club is shown in the bar graph below. Use this bar graph to answer the questions.



(a) Which club has the fewest students? How many students does that club have?

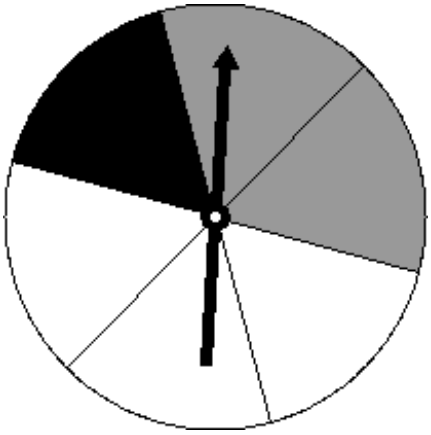
(b) How many more students are in the Drama Club than in the Glee Club?

(c) How many clubs have at least 6 students?

35. What is the average of 83 and 106?

36. A spinner with 6 equally sized slices is shown below. (2 slices are grey, 1 is black, and 3 are white.) The dial is spun and stops on a slice at random. What is the probability that the dial stops on a grey slice?

Write your answer as a fraction in simplest form.



37. Evaluate the following.

$|11| =$ ☐

$|-9| =$ ☐

38. Evaluate.

$-(-3)^3 =$ ☐

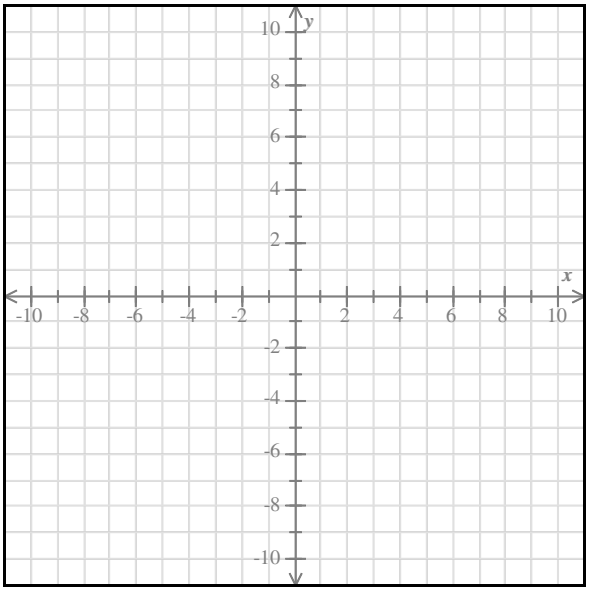
$-8^2 =$ ☐

39. Write $5{,}659{,}000$ in scientific notation.

40. Use the distributive property to remove the parentheses.

$5(u+7)$

41. Graph the line whose x-intercept is -1 and whose y-intercept is 3.

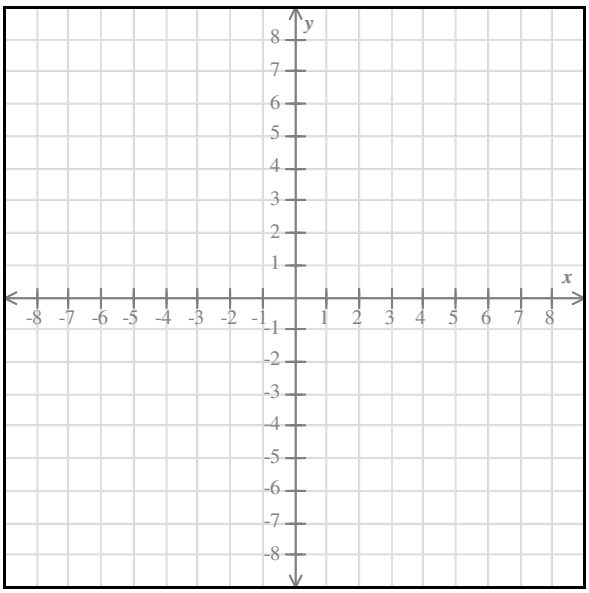


42. Translate this phrase into an algebraic expression.

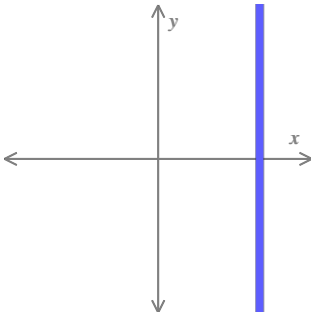
46 *decreased by twice Carlos's score*

Use the variable c to represent Carlos's score.

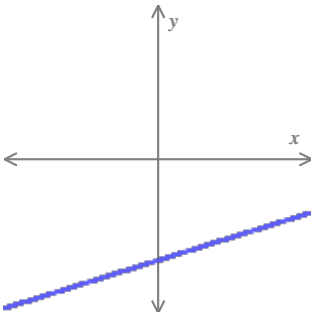
43. Using the pencil, plot the point $(-3,\ -4)$.



44. For each line, determine whether the slope is positive, negative, zero, or undefined.



_ Positive
_ Negative
_ Zero
_ Undefined



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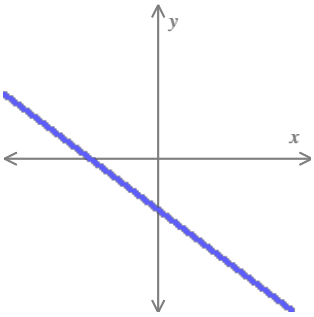
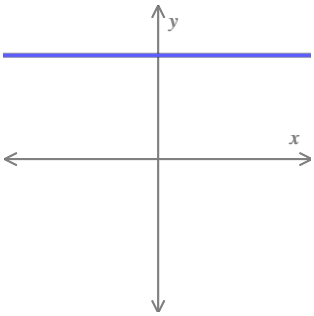
_ Undefined



_ Positive
_ Negative
_ Zero
_ Undefined



_ Positive
_ Negative
_ Zero
_ Undefined

45. Simplify.

$(7v)^2$

Write your answer without parentheses.

46. Find the slope of the line passing through the points $(2,\ 5)$ and $(8,\ -4)$.

47. Simplify.

$$\frac{45bcd}{81cd}$$

FND M010 - Review Pack #2 Answers for class Basic Math / FND M010 Spring 16 – FC3_26302-Johnson T-04N40FD301

1. 5,009,000

2. 2,800

3. 2800

4. 80

5.	Odd	Even
632	○	◉
38	○	◉
65	◉	○
59	◉	○
877	◉	○

6. $56 = 2 \times 2 \times 2 \times 7$

7. 6

8. 30

9. 17, 25, 33, 41, 49

10. 9

11. 3

12. $v = 4$

13. $y = 14$

14. $\frac{1}{10}$

15.

16. $2\frac{3}{5}$

17. $\frac{3}{11} < \frac{3}{9} < \frac{3}{6}$

18. $0.62 < 0.68$

$0.08 < 0.6$

$7.50 = 7.5$

19. (a) $17 : 8$

(b) $8 : 9$

20.

Unit price for the 3.56-pound bag: $\$5.49$ per pound

Unit price for the 4.48-pound bag: $\$5.68$ per pound

The better buy:
- (●) The 3.56-pound bag
- ( ) The 4.48-pound bag
- ( ) Neither (They have the same unit price)

21. 7 hours.

22. 36%

23. (a) 34 is what percent of 40 ? 85%

(b) 95% of 80 is what number? 76

24. 45 %

25. measure of the complement: 47°
measure of the supplement: 133°.

26.

(a) How many members does the Computer Club have?
7

(b) How many students are in the Science Club but not in the Computer Club?
2

(c) How many students are members of both the Science Club and the Computer Club?
4

27. 53 ft

28. $117\ \text{in}^2$

29. 94.2 mm

30. $1809\ \text{ft}^3$

31. 41

32. 900 cm

33. 540 seconds

34.

(a) Which club has the fewest students?

Glee

How many students does that club have?

3 student(s)

(b) How many more students are in the Drama Club than in the Glee Club?

6 more student(s)

(c) How many clubs have at least 6 students?

4 club(s)

35. 94.5

36. $\frac{1}{3}$

37. $|11| = 11$

$|-9| = 9$

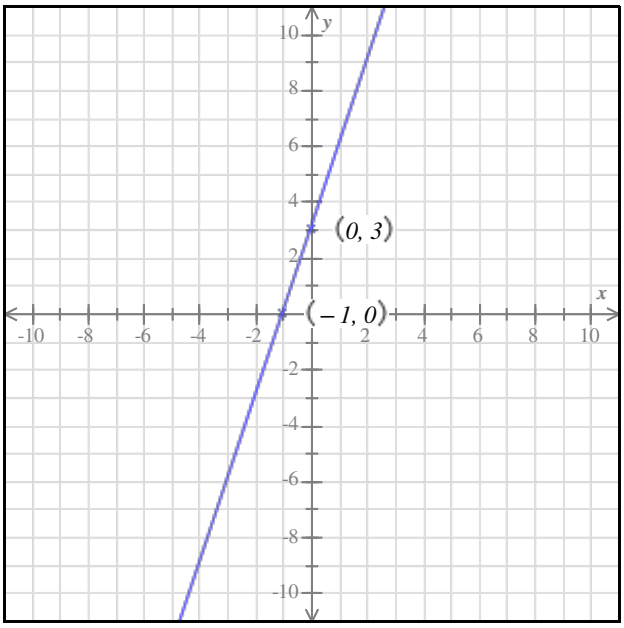
38. $-(-3)^3 = 27$

$-8^2 = -64$

39. 5.659×10^6

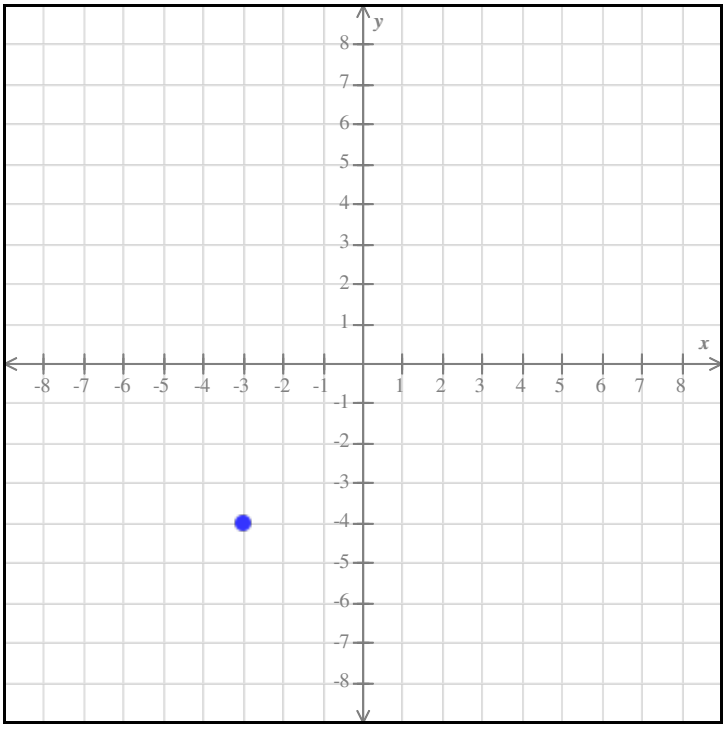
40. $5u + 35$

41.

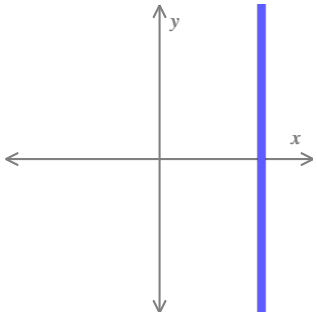


42. $46 - 2c$

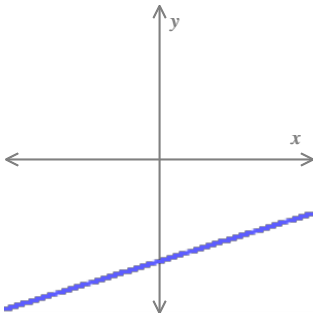
43.



44.



_ Positive
_ Negative
_ Zero
x Undefined



x Positive
_ Negative
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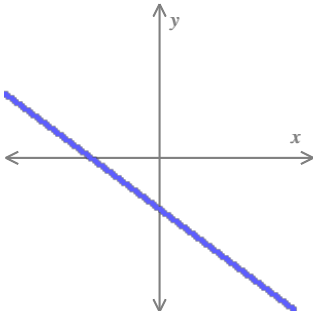
_ Undefined



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x Negative
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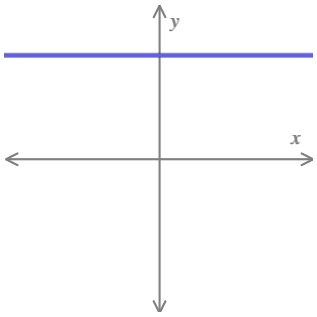

_ Positive
_ Negative
x Zero
_ Undefined

45. $49v^2$

46. $-\frac{3}{2}$

47. $\frac{5b}{9}$