

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Write the phrase as a variable expression. Use x to represent "a number."

1) The quotient of 42 and a number

1) _____

Translate the phrase into a mathematical expression. Use x to represent "a number".

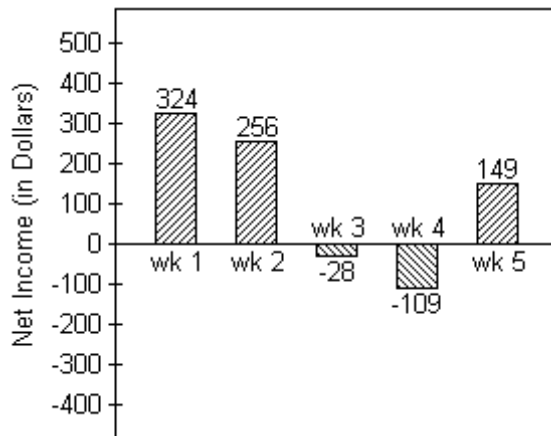
2) 3 times a number, decreased by 5

2) _____

Solve the problem.

3) Joel has started a business mowing lawns for the summer. The bar graph below tracks his net income for five weeks.

3) _____



Find the difference in Joel's net income between week 5 and week 4.

Round the money amount to the nearest cent or dollar as indicated.

4) \$31.76, nearest dollar

4) _____

Find the circumference of the circle. Then use the approximation 3.14 for π and approximate the circumference.

5)

5) _____



Insert $<$, $>$, or $=$ between the pair of numbers to form a true statement.

6) 0.491 _____ $\frac{27}{55}$

6) _____

Write the percent as a decimal.

7) 33.4%

7) _____

Translate the question into a proportion. Do not solve.

8) 76% of what number is 53.1?

8) _____

Translate to a proportion and solve. Round to the nearest hundredth, if necessary.

9) 23 is 5% of what number?

9) _____

For the food described, find the percent of total calories from fat. If necessary, round to the nearest tenth of a percent.

10) Salad dressing serving size 50 tablespoons.

10) _____

Calories	
Total	50
From fat	40

Write the phrase as a variable expression. Use x to represent "a number."

11) 29 subtracted from a number

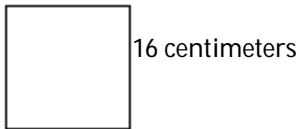
11) _____

12) Twice a number, decreased by 20

12) _____

Find the area of the square.

13)



13) _____

Simplify.

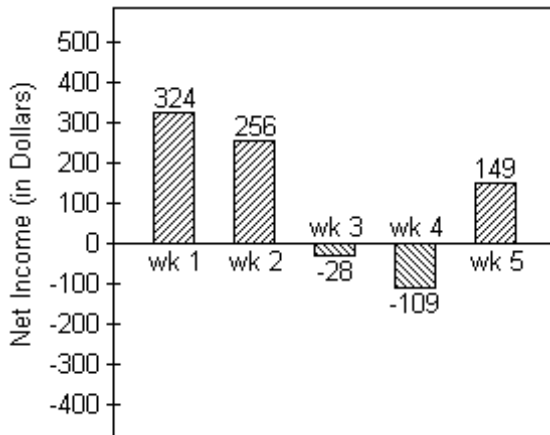
14) $34 - 3 \cdot 2$

14) _____

Solve.

15) Joel has started a business mowing lawns for the summer. The bar graph below tracks his net income for five weeks.

15) _____



Find the difference in Joel's net income between week 5 and week 3.

16) City A has an elevation of 10,039 feet above sea level while city B has an elevation of 16,871 feet below sea level. Find the difference in elevation between those two cities.

16) _____

Solve the equation.

17) $7(6x - 1) = 43x$

17) _____

18) $-3(x + 3) - 27 = -11 - 7$ 18) _____

Write the phrase as a variable expression. Use x to represent "a number."

19) The quotient of 34 times a number and -5 19) _____

Solve the equation.

20) $5(x - 6) + 9 = -1 + 4x$ 20) _____

Solve the equation by first multiplying both sides through by an appropriate power of 10 so that the equation contains integers only.

21) $0.3x + 0.8 = -0.4$ 21) _____

Use the commutative and associative properties to simplify the expression.

22) $-6 + (2x - 4)$ 22) _____

Use an associative property to complete the statement.

23) $6 \cdot (cy) =$ 23) _____

Solve the equation for the indicated variable.

24) $P = a + b + c$ for c 24) _____

Solve the equation.

25) $\frac{4(x + 7)}{5} = x - 2$ 25) _____

Solve.

26) It took Sara's mother 3 hours round trip to drive to the University and bring Sara back home for spring break. If the University is $70\frac{1}{2}$ miles from home, find her mother's average speed. 26) _____

Perform the indicated operation and write the answer in simplest form.

27) $\frac{1}{8} - \frac{11}{x}$ 27) _____

Add or subtract as indicated. Write the answer in simplest form.

28) $7 - \frac{y}{11}$ 28) _____

Solve.

29) You have taken up gardening for relaxation and have decided to fence in your new rectangular shaped masterpiece. The length of the garden is 8 meters and 50 meters of fencing is required to completely enclose it. What is the width of the garden? 29) _____

30) Find the value of L if $P = 18$ and $W = 2$ in the formula $P = 2L + 2W$. 30) _____

Solve the problem.

- 31) There are 14 more sophomores than juniors in an 8 AM algebra class. If there are 110 students in this class, find the number of sophomores and the number of juniors in the class.

31) _____

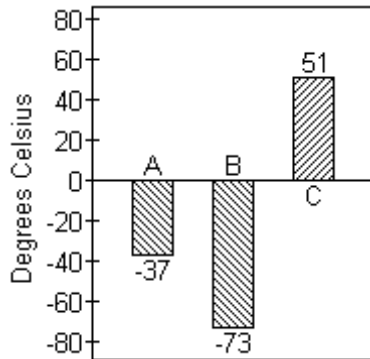
Solve.

- 32) A football team lost 7 yards on each of two consecutive plays. Represent the total loss as product of signed numbers and find the total loss.

32) _____

- 33) The graph shows the melting points in degrees Celsius of three compounds: Compound A, Compound B and Compound C.

33) _____

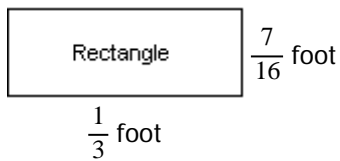


The melting point of Compound D is 2 times the melting point of Compound A. Find the melting point of Compound D.

Find the perimeter and area of the figure.

34)

34) _____



Answer Key

Testname: MAT0022 MIDTERM REVIEWSA

- 1) $\frac{42}{x}$
- 2) $3x - 5$
- 3) \$258
- 4) \$32
- 5) 28.26 ft
- 6) $<$
- 7) 0.334
- 8) $\frac{53.1}{b} = \frac{76}{100}$
- 9) 460
- 10) 80%
- 11) $x - 29$
- 12) $2x - 20$
- 13) 256 sq cm
- 14) 28
- 15) \$177
- 16) 26,910 ft
- 17) -7
- 18) -6
- 19) $\frac{34x}{-5}$
- 20) 20
- 21) -4
- 22) $-10 + 2x$
- 23) $(6c) \cdot y$
- 24) $c = P - a - b$
- 25) 38
- 26) 47 mph
- 27) $\frac{x - 88}{8x}$
- 28) $\frac{77 - y}{11}$
- 29) 17 m
- 30) 7
- 31) 62 sophomores; 48 juniors
- 32) $2 \cdot (-7) = -14$ yds; 14 yard loss
- 33) -74°C
- 34) perimeter: $1\frac{13}{24}$ ft; area: $\frac{7}{48}$ sq ft