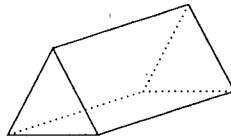
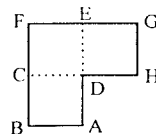


1. What number tripled is half of 42? 1. _____
2. A circular region of radius 2 units is completely inside a circular region of radius 5 units. What percent of the larger region is occupied by the smaller region? 2. _____
3. What is the least positive integer that can be added to 412 to yield a multiple of 3? 3. _____
4. Eight U.S. coins are worth a total of 38 cents. How many of the coins are dimes? 4. _____
5. How much more is 3^4 than 4^3 ? 5. _____
6. Compute: $\frac{66,666^4}{22,222^4}$. 6. _____
7. What is the greatest common factor of 40 and 48? 7. _____
8. What is the sum of the number of faces, edges and vertices of a triangular prism? 8. _____
9. The value of eight nickels and six dimes is the same as four nickels and how many dimes? 9. _____
10. Find the number of square units bounded by the x -axis, the y -axis and the line $x + y = 6$. 10. _____
11. What is the value of x when $4^3 + 6^2 = 10^x$? 11. _____
12. Fred has 2 yellow, 2 red and 2 green tokens. One red token is equivalent to 3 yellow tokens. One yellow token is equivalent to 3 green tokens. Fred converts all of his tokens to green tokens. How many green tokens does he have? 12. _____
13. A right triangle has legs with lengths of 5 units and 12 units. How many units long is the hypotenuse? 13. _____
14. Using only the digits 1 through 5, how many even three-digit positive integers less than 500 can be written if digits can be used more than once? 14. _____
15. The average of five numbers is 10.6. Four of the numbers are 10, 4, 5 and 20. What is the value of the fifth number? 15. _____



16. In the figure shown, polygons ABCD, CDEF and DEGH are squares. The perimeter of hexagon ACFGHD is 40 cm. How many square centimeters are in the area of hexagon ACFGHD?



16. _____

17. How many non-negative integers are less than 10π ? 17. _____
18. In training, Petra runs $\frac{1}{6}$ of a mile in 60 seconds. At this rate, how many seconds does it take Petra to complete a run of $\frac{1}{4}$ of a mile? 18. _____
19. What is the remainder when 5462 is divided by 9? 19. _____
20. How many more boxes are needed if 70 ornaments are packaged in boxes of five rather than boxes of seven? 20. _____
21. What common fraction is equivalent to 2.5%? 21. _____
22. The perimeter of a rectangle is 32 cm. Its length is three times its width. How many centimeters are in the length of the rectangle? 22. _____
23. At which of the following stores is the average cost per pencil the least? Store A sells 17 pencils for \$1.50, Store B sells 5 pencils for \$0.85 and Store C sells 7 pencils for \$1.20. 23. _____
24. In any month with a "Friday the Thirteenth," what day of the week is the first day of the same month? 24. _____
25. What is the maximum number of regions in the plane created by three distinct lines, no two of which are parallel? 25. _____
26. At the penny store, there are candies that cost 7 cents and candies that cost 17 cents. If Araz spent exactly 99 cents on these two types of candy, how many total candies did he buy? 26. _____
27. What is the sum of the first six positive multiples of 3? 27. _____
28. Express the sum as a common fraction: $\frac{1}{10} + \frac{1}{100} + \frac{1}{1000} + \frac{1}{10,000}$. 28. _____
29. Each side of pentagon ABCDE has length less than or equal to 7 units, $AB = 5$ units and $BC = 4$ units. How many units are in the greatest possible perimeter of ABCDE? 29. _____
30. Two fields each have a perimeter of 400 feet. One is a square and one is a rectangle with dimensions of 50 feet by 150 feet. What is the positive difference in the number of square feet of their areas? 30. _____
31. What is the greatest integer less than $\frac{-17}{4}$? 31. _____
32. Using two distinct members of the set $\{0, 1, 2, 3, 4\}$, how many different sums can be attained? 32. _____

33. Evaluate the expression $a^3 \cdot a^2$ if $a = 5$. 33. _____
34. How many square centimeters are in the area of a triangle whose sides have lengths 5 cm, 12 cm and 13 cm? 34. _____
35. The side length of a cube is doubled. The volume of the new cube is how many times the volume of the original cube? 35. _____
36. How many integers between 200 and 300 are perfect squares? 36. _____
37. If the middle two digits of 9567 were interchanged, how much larger would the resulting number be? 37. _____
38. Let $f(x) = 2x - 3$ and $g(x) = x + 1$. What is the value of $g(f(5) - 1)$? 38. _____
39. What is the greatest two-digit multiple of 13? 39. _____
40. What is the slope of the line containing the midpoint of the segment with endpoints at (0, 0) and (2, 2) and the midpoint of the segment with endpoints at (5, 0) and (6, 2)? Express your answer in simplest form. 40. _____
41. A pair of diamond earrings was purchased by a dealer for \$900 and sold to a customer for \$1125. By what percent of the original price did the price increase? 41. _____
42. Joshua's restaurant bill is \$10. To calculate the tip, he calculates 15% of the value of the bill and then rounds up to the nearest dollar. What percent of his \$10 bill does he actually tip? 42. _____
43. What is the sum: $-10 + -9 + -8 + \dots + 9 + 10 + 11 + 12$? 43. _____
44. One side of a square is $12 + 3x$ centimeters and another side is $32 + x$ centimeters. How many centimeters is the length of the diagonal of the square? Express your answer in simplest radical form. 44. _____
45. The ratio of x to 40 is equal to the ratio of 12 to 30. What is the value of x ? 45. _____
46. If the Smith family drinks milk daily, a carton of milk will last them for 12 days. If the Smiths want milk at home at least $\frac{4}{5}$ of the time, they must purchase milk every how many days? 46. _____
47. The area of a circle is 100π square centimeters. How many centimeters are in the circumference of the circle? Express your answer in terms of π . 47. _____

48. What is the units digit of the product of the first three positive composite numbers? 48. _____
49. Evaluate $(x + y)(x - y)$ when $x = 15$ and $y = 5$. 49. _____
50. How many degrees are in each interior angle of a regular hexagon? 50. _____
51. Calculate: $\frac{2 + \frac{2}{3}}{2 - \frac{2}{3}}$. 51. _____
52. Simplify: $(\sqrt{5})^4$. 52. _____
53. If 75 seeds are planted and 15 of the seeds are germinating, what is the ratio of seeds germinating to seeds planted? Express your answer as a common fraction. 53. _____
54. The scale of a backpacker's map is "1 cm on the map represents 24,000 cm on the ground." How many kilometers long is a hike that measures 10 cm on the map? Express your answer as a decimal to the nearest tenth. 54. _____
55. Mississippi was one of ten states to lose a Congressional seat based on the 2000 Census. What percent of the 50 states did not lose a Congressional seat? 55. _____
56. If $y = 2 - 3x$ and x increases by 1, then y decreases by what amount? 56. _____
57. Ben flips a fair nickel four times. What is the probability that Ben flips Head, Tail, Head, Tail, in that order? Express your answer as a common fraction. 57. _____
58. Mary jogs 16 miles in 2 hours, 24 minutes. On average, how many minutes does it take her to jog one mile? 58. _____
59. With one skein of wool yarn, Sharon can knit three inches of a scarf that is nine inches wide. What is the least whole number of skeins with which she can knit a scarf that is six inches wide and two feet long? 59. _____
60. Three positive integers have a sum of 72 and are in the ratio 1:3:4. What is the least of these three integers? 60. _____

Countdown Round Answers

1. 7	16. 75 (square centimeters)	31. -5	46. 15 (days)
2. 16 (percent)	17. 32 (integers)	32. 7 (sums)	47. 20π (centimeters)
3. 2	18. 90 (seconds)	33. 3125	48. 2
4. 2 (coins)	19. 8	34. 30 (square centimeters)	49. 200
5. 17	20. 4 (boxes)	35. 8	50. 120 (degrees)
6. 81	21. $\frac{1}{40}$	36. 3 (integers)	51. 2
7. 8	22. 12 (centimeters)	37. 90	52. 25
8. 20	23. (Store) A	38. 7	53. $\frac{1}{5}$
9. 8 (dimes)	24. Sunday	39. 91	54. 2.4 (kilometers)
10. 18 (square units)	25. 7 (regions)	40. 0	55. 80 (percent)
11. 2	26. 7 (candies)	41. 25 (percent)	56. 3
12. 26 (tokens)	27. 63	42. 20 (percent)	57. $\frac{1}{16}$
13. 13 (units)	28. $\frac{1111}{10,000}$	43. 23	58. 9 (minutes)
14. 40 (integers)	29. 30 (units)	44. $42\sqrt{2}$ (centimeters)	59. 6 (skeins)
15. 14	30. 2500 (square feet)	45. 16	60. 9