Math Power

April 12, 2020
☎: 301-251-7014
site: http://www.MathEnglish.com
By Dr. Li
E-mail : DL@MathEnglish.com

Name: (First)_____(Last)_____

School: _____ Grade:_____

Mul-Div Mixed Operations

1. _____ × 7=63
2. _____ × 5=40
3. 24 ÷ _____=4
4. 9 × 8=
5. 35 ÷ _____=5
6. _____ × 3=18
7. 27 ÷ 3=
8. 3 × 4=
9. _____ × 8=48
10. 8 × _____=24
11. _____ × 6=24
12. 2 × 6=
13. 28 ÷ _____=4
14. 8 ÷ _____=2
15. _____ × 4=8
16. 8 × 5=
17. 12 ÷ _____=6
18. 4 × _____=12
19. 54 ÷ 6=
20. 81 ÷ _____=9

Operating Numbers

21. 7 + 8 - 7 =
22. 8 + 6 + 8 =
23. 7 - 7 + 9 =
24. 7 + 9 + 6 =

25. 9 + 2×3 =

26. 2×5 + 8 =

27. 4 + 3×4 =

28. 4 + 8 + 3 =

29. 5 + 8 + 7 =

30. 5 + 2 + 4 =

31. 7 + 6×6 =

32. 4 + 3×3 =

33. 7×9 - 7 =

34. 4×5 + 4 =

35. 4×2 + 7 =

36. 5 + 6 + 3 =

37. 6 + 9 + 8 =

38. 4×2 + 2 =

39. 3×2 + 4 =

40. 3×6 + 8 =

Mul-Div Mixed Operations

41. _____ × 2=14

42. 4 ÷ 2=

43. 32 ÷ _____=8

44. 6 × _____=42

45. 3 × _____=12

46. _____ ÷ 5=5

47. 49 ÷ 7=

48. _____ ÷ 2=2

49. 14 ÷ _____=7

50. _____ ÷ 6=5

51. 2 × 4=

52. 10 ÷ _____=5

53. 20 ÷ _____=5

54. _____ ÷ 2=3

55. 72 ÷ _____=9

56. 48 ÷ _____=6

57. 4 × 6=

58. 28 ÷ 7=

59. _____ × 7=21

60. _____ ÷ 8=4

Operating Numbers

61. 4 + 7 + 3 =

62. 4 + 4 - 4 =

63. 5 - 9 + 5 =

64. 3 + 5 + 7 =

65. 8 + 5 - 2 =

66. 5 + 7×4 =

67. 8 + 7×2 =

68. 3 + 6×3 =

69. 9 + 9×7 =

70. 6 + 6×2 =

71. 9 + 9 + 6 =

72. 3 + 5×9 =

73. 2×6 - 4 =

74. 5×2 - 9 =

75. 2×6 - 6 =

76. 2×8 + 8 =

77. 4×2×3 =

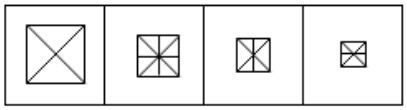
78. 8×6×7 =

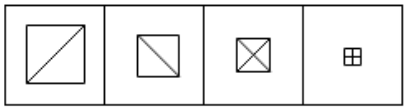
79. 9×3×9 =

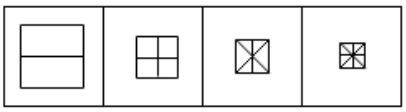
80. 6×9×6 =

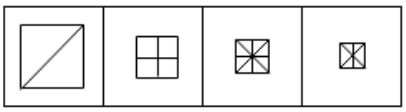
Picture Analogy

81. As the square decreases in size, its parts increase in number.

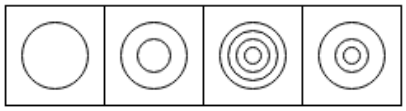
A. 

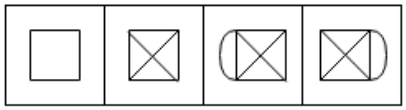
B. 

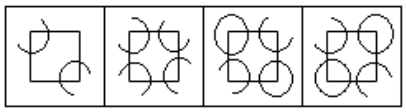
C. 

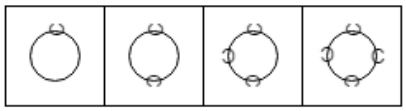
D. 

82. The image becomes complex as the series proceeds.

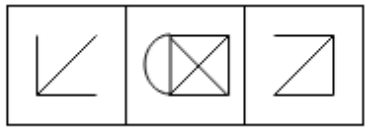
A. 

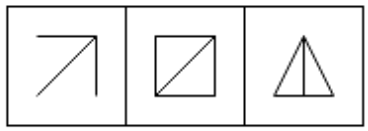
B. 

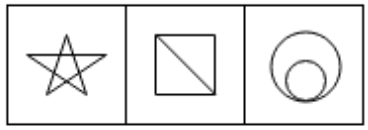
C. 

D. 

83. A single unbroken line can trace any figure in the series without retracting.

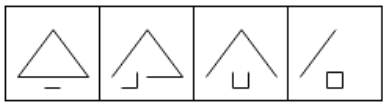
A. 

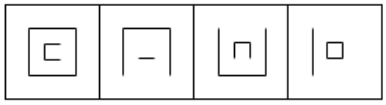
B. 

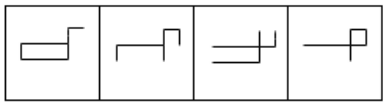
C. 

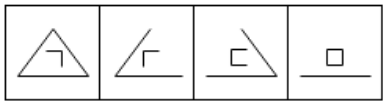
D. 

84. Closed figure becomes more and more open, and the open figure becomes more and more closed.

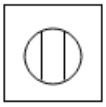
A. 

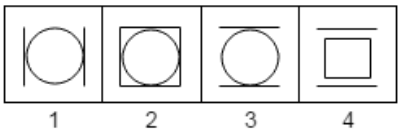
B. 

C. 

D. 

85. The curves turn into straight lines and the straight lines turn into curves.

(X) 



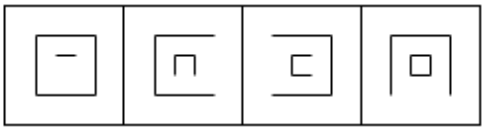
A. 1

B. 2

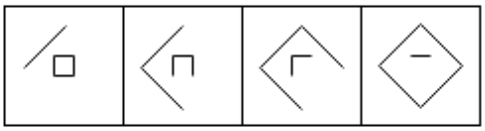
C. 3

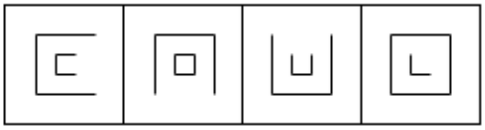
D. 4

86. Open figure becomes more and more closed, and the closed figure becomes more and more open.

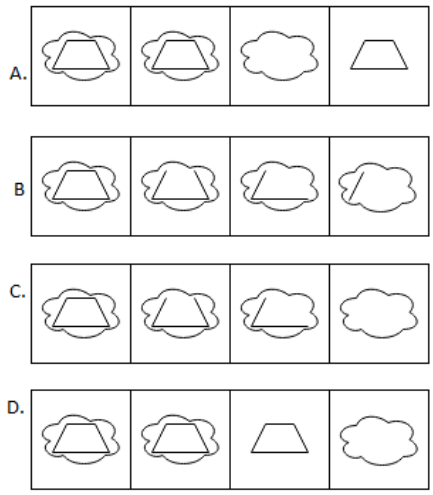
A. 

B. 

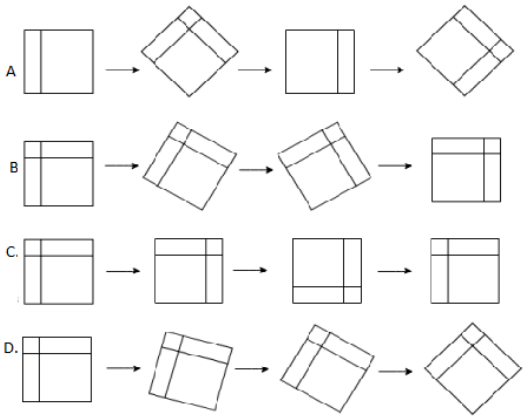
C. 

D. 

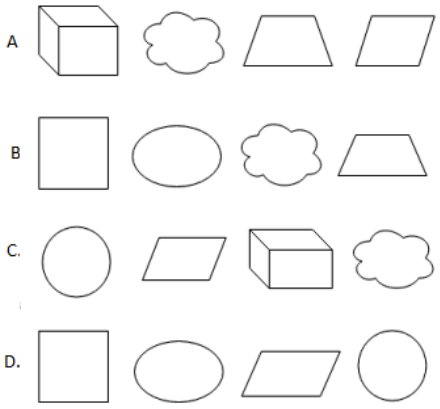
87. The image becomes simpler as the series proceeds.



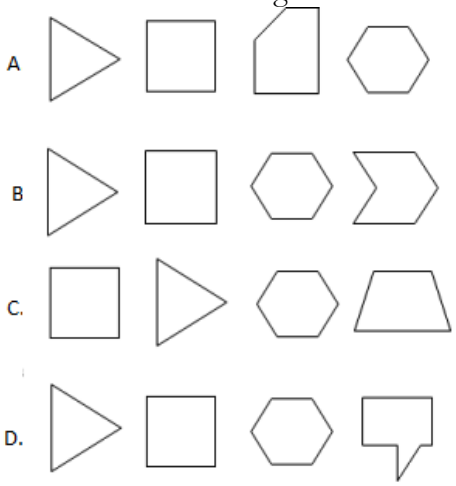
88. The image rotates clockwise 45 degrees as it moves one step forward towards the right side.



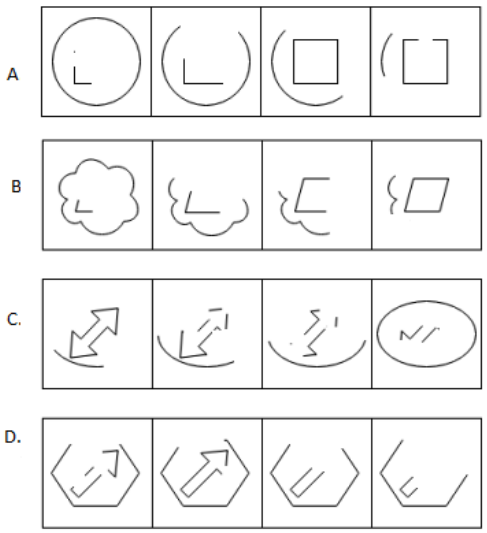
89. The image formed by curved lines alternates with the image formed by straight lines.



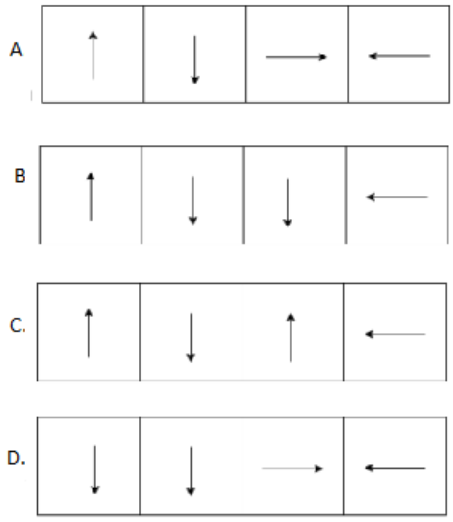
90. The sides of the shapes in a series increases by one as we move one step forward towards the right side.



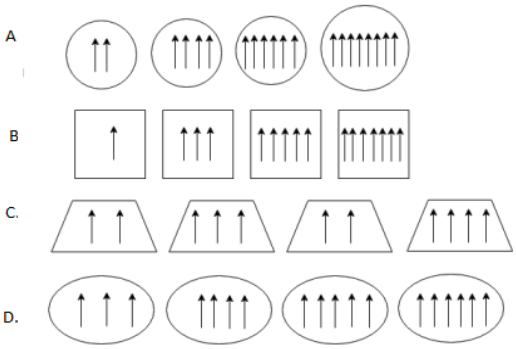
91. The outer shape disappears gradually, whereas the inner shape appears slowly as the series moves one step forward towards the right side.



92. The arrows of the given series can be combined without changing their direction to form a meaningful image.



93. The arrows don't follow any pattern as the image moves one step forward towards the right side.



GT3 Stretches

94. The chart below shows the height, in feet, of four different mountains in Colorado.

Mountain Heights

Mountain	Height (in feet)
Mt. Shavano	14,229
Mt. Antero	14,269
Mt. Cameron	14,238
Mt. Wilson	14,246

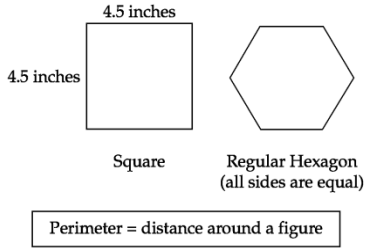
The height of Mt. Evans is between the two greatest heights shown on the chart above. Which of the following could be the height of Mt. Evans?
A) 14,208 feet
B) 14,241 feet
C) 14,275 feet
D) 14,264 feet

95. Find the missing number:
57, 53, 49, 45, 41, ____

96. Neva has two dozen pencils and 8 pens on her desk. Tracy has 8 pencils and 13 pens on her desk. How many more pencils and pens does Neva have than Tracy?

97. A 12-gallon tank is filled with water at the rate of $\frac{1}{4}$ gallon in 5 seconds. At this rate, how many minutes and seconds will it take to fill $\frac{5}{6}$ of the tank?

98. Matt is making a paper mobile. He draws and cuts out a square with sides 4.5 inches long. Next he draws a regular hexagon with the same perimeter as the square. How long is each side of the regular hexagon?



99. Nora measured the angles of a triangle. Two of the angles measured 20° each. What was the measure of the third angle of Nora's triangle?
A) 20°
B) 50°
C) 140°
D) 180°

100. Which sign goes in the box to make the number sentence true?

48 ☐ 6 = 8
A) +
B) −
C) ×
D) ÷

101. Melissa left for soccer practice at 3:30 P.M. She returned home two hours and 30 minutes later. Write the time she returned home.

102. The Hamilton family drove 138 miles. The Jefferson family drove 206 miles. Which of these correctly compares the number of miles each family drove?
A) 138 < 206
B) 138 + 206
C) 138 - 206
D) 138 > 206

103. Find the missing number:
1, .3, 9, 2.7, 81, ____

104. Recycling 1 ton of paper will save 5 trees. If 6 schools each recycle 4 tons of paper, how many trees will be saved?

105. Which of the following is read "fifty-three hundredths"?
A) 5300
B) 53.00
C) 0.53
D) 0.053

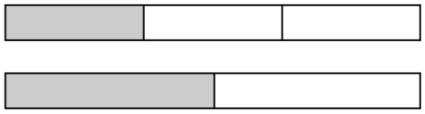
106. Candace is twice as old as Brenda. Alice is two years older than Candace. If Alice is 14 years old, how old is Brenda?

107. What number results when the product of 8 and 8 divided by the sum of 8 and 8?

108. The product 60×60×24×7 equals
A) the number of minutes in seven weeks
B) the number of hours in sixty days
C) the number of seconds in seven hours
D) the number of seconds in one week

109. There are 9 rows of seats in a theater. Each row has the same number of seats. If there is a total of 162 seats, how many seats are in each row?

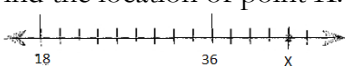
110. Look at the picture below.



Which is true?
A) $\frac{1}{3}$ is less than $\frac{1}{2}$
B) $\frac{1}{3}$ is greater than $\frac{1}{2}$
C) $\frac{1}{3}$ is equal to $\frac{1}{2}$
D) cannot compare

111. Which describes the rule for this pattern?
2, 6, 18, 54
A) multiply by 3
B) multiply by 4
C) multiply by 6
D) divide by 3

112. Find the location of point X.



113. Last Saturday, three students picked apples into baskets at an orchard. Each basket held the same number of apples. The table below shows the total number of baskets of apples each student picked.

BASKETS OF APPLES

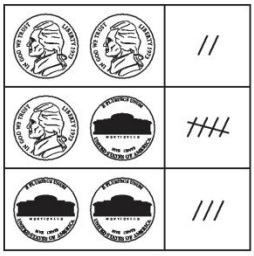
Student	Number of Baskets
Marie	4
Sarah	2
Lance	3

If they had 72 apples altogether, how many apples did each basket hold and each person pick?

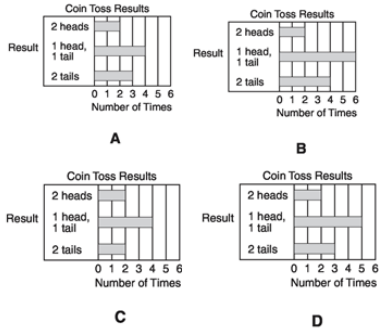
GT3 Stretches

114. A box of cherries weighs 3.085 pounds. What is that rounded to the nearest hundredth of a pound?

115. Danny tossed 2 nickels 10 times. The results are shown in the tally chart below.



Which graph shows these results?



116. Find the missing number:
$9 + \square = 13 - \square$

117. Ms. White wrote the problem shown below.
• Rosa and Sanjay have 14 pens altogether.
• Rosa has 6 pens.
• Sanjay has ☐ pens.
How many pens does Sanjay have?

Which number sentence matches the problem?
A) ☐ + 14 = 6
B) ☐ - 14 = 6
C) 6 + ☐ = 14
D) 6 - ☐ = 14

118. There were 15 brownies on two plates. When 3 brownies were taken away from the first plate, there were 7 brownies left on it. How many brownies were on the second plate?

119. Megan is increasing the number of minutes she exercises each day according to the pattern shown below.

Number of Minutes of Exercise

Mon	Tues	Wed	Thur
2	4	8	16

How many minutes should she exercise on Friday?

120. Ling leaves for a trip on July 12th, a Monday.

July						
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

He will return 14 days later. What day will he return?

121. Mary had been earning $4.25 an hour. This week she got a raise to $4.50 an hour. She works 40 hours each week. How much more money will she make this week than she made last week?

Question set [122 - 123]

Molly and Dan had four marbles altogether. When they finished playing, Dan said to Molly: "If you give me one of your marbles, we'd both have the same number of marbles."

122. How many marbles did Molly have?

123. How many marbles did Dan have?

124. How many numbers in the list 11, 12, 13, 14, 15, 16, 17 are prime numbers?

125. It is 10:30 P.M. now. What was the time 11 hours ago?

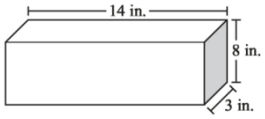
126. Gina has 558 flags to pack into boxes. Each box will hold 62 flags. How many boxes will Gina need to hold all the flags?

127. 4.1 + 1.05 + 2.005 =

128. Dana, Joy, and Puja shared their compact discs (CDs) so that each girl got 12. Which equation can be used to determine how many CDs there were in all?
A) 12÷3 = ☐
B) 12−3 = ☐
C) 12+3 = ☐
D) 12×3 = ☐

129. The Sumata family took a five-day vacation by car. Each day they drove 250 miles. How many miles in total did they drive?

130. This rectangular prism has a length of 14 inches, a height of 8 inches, and a width of 3 inches.



What is the volume?

131. Fill the Magic Square. Find the missing numbers so that sums in all directions (vertical, horizontal, diagonal) are the same. What are the numbers?

5		
4	6	
		7

132. Jim's candy bar costs 39¢ while my bag of jelly beans costs 58¢. Laura's pack of gum costs 29¢ and John's popsicle costs 18¢. What is the total cost altogether? (Hint: Use a cool method like 39 = 40 – 1.)

133. How many odd numbers are there from 1 to 61?

Answer Key

1. 9
2. 8
3. 6
4. 72
5. 7
6. 6
7. 9
8. 12
9. 6
10. 3
11. 4
12. 12
13. 7
14. 4
15. 2
16. 40
17. 2
18. 3
19. 9
20. 9
21. 8
22. 22
23. 9
24. 22
25. 15
26. 18
27. 16
28. 15
29. 20
30. 11
31. 43
32. 13
33. 56
34. 24
35. 15
36. 14
37. 23
38. 10
39. 10
40. 26
41. 7
42. 2
43. 4
44. 7
45. 4
46. 25
47. 7
48. 4
49. 2
50. 30
51. 8
52. 2
53. 4
54. 6
55. 8
56. 8
57. 24
58. 4
59. 3
60. 32
61. 14
62. 4
63. 1
64. 15
65. 11
66. 33
67. 22
68. 21
69. 72
70. 18
71. 24
72. 48
73. 8
74. 1
75. 6
76. 24
77. 24
78. 336
79. 243
80. 324
81. **Answer:** C
Explanation:
Only the third series follows the given rule.

82. **Answer:** D
Explanation:
Only the fourth series follows the given rule.

83. **C**

84. **A**

85. **B**

86. **C**

87. **B**
In the second series, the image becomes simpler as the series proceeds. The trapezium inside the cloud loses its side one by one as the sequence proceeds one step forward to the right side.

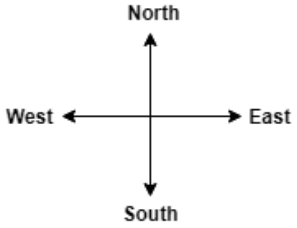
88. **Answer:** A
Explanation:
Only in the first series, the image rotates 45 degrees as it moves towards the right side. In the second series, it turns 30 degrees; in third series, it rotates 90 degrees, and in the fourth series, it rotates by 15 degrees as it moves one step forward towards the right side. See the corner of the image, which forms a small square, to understand the movement of the image.

89. **Answer:** D
Explanation:
Only in the fourth series, an image formed by curved lines alternates with an image formed by straight lines. The images in the first, second and third series do not follow this rule.

90. **Answer:** A
Explanation:
Only in the first series, the sides of the shapes increase by one as we move one step forward towards the right side, e.g., the shapes in the first series have 3, 4, 5 and 6 sides respectively. In the remaining series, the sides of the shapes are not increasing by one as we move towards the right side.

91. **Answer:** B
Explanation:
Only in the second series, the outer shape disappears gradually, and the inner shape appears gradually as we move one step forward towards the right side. The third series follows the reverse order; the outer shape appears gradually, and inner shape disappears gradually. The first and fourth series also do not follow the given rule. So, the answer is option B.

92. **Answer:** A
Explanation:
Only the arrows of the first series can be combined without changing their directions to form a meaningful image as shown below:



This image indicates the four cardinal directions, which are generally denoted by their initials N, E, S, and W. The arrows of any other series can't be combined, without changing their directions, into any meaningful information.

93. **Answer:** C
Explanation:
In the first series, as the image moves one step forward, the number of arrows increases by two, e.g. 2, 4, 6 and 8. In the second series, the number of arrows increases by 2, e.g. 1, 3, 5 and 7. In the fourth series, the number of arrows increases by one. Only the arrows of the third series do not follow any specific pattern, e.g. 2,3,2,4.

94. D

95. 37

96. 24 + 8 - (8 + 13) = 11

97. $\frac{5}{6}\times 12 = 10$ gallons
$10\div\frac{1}{4} = 40$
40×5 = 200 (sec) = 3 min 20 sec

98. 4.5×4 = 18
18÷6 = 3 inches

99. C

100. D

101. 3:30 + 2:30 = 6:00 pm

102. A

103. 1, 3, 9, 27, 81, 243
1, .3, 9, 2.7, 81, 24.3

104. 5×6×4 = 120

105. C

106. Candace = 14 - 2 = 12
Brenda = 12÷2 = 6 yrs old

107. 8×8 ÷ (2×8) = 4

108. D

109. 162÷9 = 18

110. A

111. A

112. 36 + 2×4 = 44

113. 4 + 2 + 3 = 9
72÷9 = 8 apples (per basket)
8×4 = 32(Marie)
8×2 = 16 (Sarah)
8×3 = 24 (Lance)

114. 3.09

115. D

116. 2

117. C

118. 15 – (3 + 7) = 5 brownies

119. 32

120. July 26

121. 40×(4.5 - 4.25) = 40×0.25 = $10

122. 3

123. 1

124. 3 primes: 11, 13, 17

125. 11:30 A.M.

126. 9

127. 7.155

128. D

129. 5×250 = 1250

130. 14×8×3 = 112×3 = 336

131. All the sums are 5 + 6 + 7 = 18.

5	**10**	**3**
4	6	**8**
9	**2**	7

132. 40+60+30+20–(1+2+1+2)
= 150 – 6
= $1.44

133. 31