

Math Power

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☎: 301-251-7014

🌐 site: <http://www.MathEnglish.com>

By Dr. Li

E-mail : DL@MathEnglish.com

Name: (First)_____ (Last)_____

School: _____ Grade: _____

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Math Joy

1. If Zach scored 6 points in each game, how many points did he score in 30 games?



2. Jane went to the store 20 times last month. She buys 5 marbles each time she goes to the store. How many marbles did Jane buy last month?

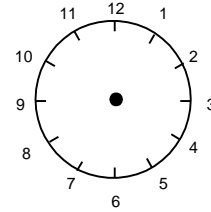
3. Leta walks 3 miles per hour.
 - (a) How far she can walk in 3 hours?
 - (b) How many hours will it take her to walk 15 miles?

4. Mike saw 10 penguins at the zoo. If half of the penguins were in the water, how many penguins were not in the water?

5. Mrs. Jones had 25 brushes. If she bought 19 more, how many brushes did she have in total?

6. A candy store has 6 boxes of Jolly Ranchers. If each box has 50 pieces, how many pieces are there in total?

7. Ed rides a bicycle for 45 minutes. If he begins riding at 4:45, what time does he



stop?

8. I have 15 cents to buy candy. If each gumdrop costs 3 cents, how many gumdrops can I buy?

9. I have 32 pencils. If I put 4 pencils in each pencil box, how many pencil boxes will I fill?

10. I have 9 pennies, 4 nickels, and 3 dimes. How much money do I have?

11. If a pencil costs \$2, how many pencils you can buy with \$6?

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12. If Carol received 1 marble on March 1st, then she received 4 marbles every day after that, how many marbles did she have till March 6th?

Question set [18 - 20]

Nancy is 4 years older than Maria. Maria will turn 15 in nine years.

18. How old is Maria now?

13. If Kim spent 6 minutes to wrap 4 books, how long did she spend on each book?

19. How old is Nancy now?

14. 8 children got on the bus at the first stop. With no one getting off, some children got on at the second stop. Afterwards, the bus had 25 children in total. How many more children got on the second stop than the first one?

20. How old was Nancy 3 years ago?

Math Joy

15. At some parking lot, it asks for \$5 for the first hour, then \$3 for each additional hour. How much would it cost to park for 4 hours?

21. If Levi sold 36 of them out of 92 pens, how many pens were not sold?

16. If Helen gave Tom a quarter of her 24 stickers, how many stickers did she give away?

22. Toby swam 62 yards and Isaac swam 9 more yards. How far did they both swim in total?

17. If Rita sold 42 books, Paul sold 57 books, and Sam sold 21 books, how many books did they sell in total?

Question set [23 - 25]

Amy and Brenda are 5 and 7 years old.

23. What is their combined age in total now?

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24. What is their combined age in total in 3 years?

30. How many trees have the same height?

25. What was their age difference 3 years ago?

31. How many trees are taller than the beech tree?

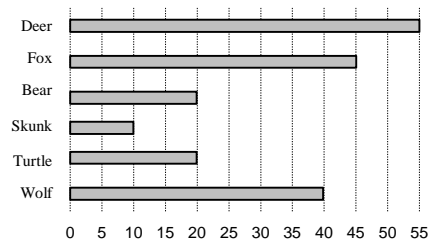
26. Each backpack weighs 3 pounds. How much do 15 backpacks weigh altogether?

32. How many trees are shorter than the spruce tree?

27. She bought 8 peaches with \$.50 each. If she had \$5, how much change should she get?

Question set [33 - 38]

Animals Observed in Green River Wildlife Park



28. After Harry gave Jon \$6, Harry still had \$10 more than Jon. How much more money did Harry have than Jon originally?

33. Which kind of animal is fewest in number?

Question set [29 - 32]

Birch tree	128 ft
Beech tree	115 ft
Spruce tree	106 ft
Oak tree	119 ft
Pine tree	106 ft
Willow tree	56 ft

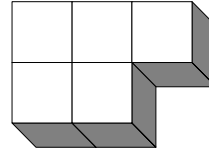
34. Which kind of animal is greatest in number?

29. How many feet tall is the birch tree?

35. How many turtles can be found in the Green River Wildlife Park?

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36. How many foxes can be found in the Green River Wildlife Park?
37. How many groups of animals have more members than the turtles?
42. Five tightly packed cubic blocks (as the figure shows) are dipped in paint.
(a) How many of the block's faces will not be painted?
(b) How many of the block's faces will be painted?



38. How many groups of animals have fewer than 35 members?
39. A rectangular garden is 6-yard by 3-yard. It costs \$4 per square yard to cover the garden area with artificial grass. How much change will you get back if you pay with \$80?
40. The width of a rectangle is 10 inches and a perimeter of 50 inches. What is the area of the rectangle?
43. A rectangle is 25 inches long and 10 inches wide. What is the perimeter of the rectangle?

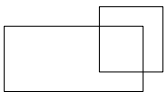
Question set [44 - 45]

A rectangle has a length 5 in. longer than its width. The width is 10 in.

44. What is the perimeter of the rectangle?
45. What is the area of the rectangle?

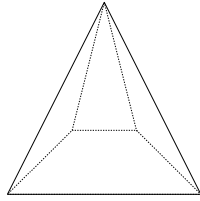
Geometry

41. How many right angles are in the figure below?



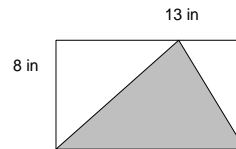
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46. How many triangular faces does this rectangular pyramid have? How many edges?



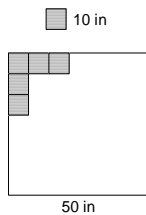
50. An 8 inch wide rectangle has a 56 inch perimeter. What is the length of the rectangle?

51. Find the area of the shaded region below.



Question set [47 - 48]

A square area will be decorated by placing smaller square tiles around each side. The dimensions are shown in the figure.



47. What is the area of the uncovered part?

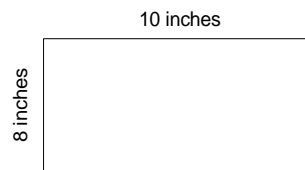
52. A rectangle has a width of 12 inches and an area of 192 square inches. What is the length of the rectangle?

48. How many small tiles are needed?

53. A rectangle has a width of 10 inches and a perimeter of 50 inches. What is the area of the rectangle?

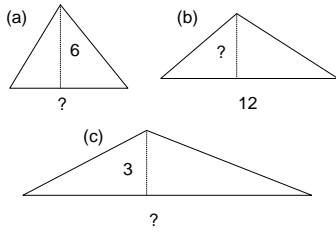
49. A rectangle is 10 inches long and has a 3 feet perimeter. What is the area in square inches?

54. Find the perimeter of a rectangle with length 10 inches and width 8 inches.

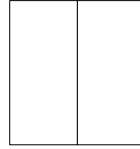


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55. The following triangles are provided base or height, each with area of 24 square inches. Find the length of the base or height.



60. Two rectangles form a square. The square has a perimeter of 64 in. What is the perimeter of a rectangle?



56. A rectangle has an 8 inch width and a perimeter of 30 inches.
- (a) What is the length of the rectangle?
- (b) What is the area of the rectangle?

GT Math Stretch

61. The chart below describes the speed of four desktop printers. Which printer is the fastest?

Printer	Description
Roboprint	Prints 2 pages per second
Voltronn	Prints 1 page every 2 seconds
Vantek Plus	Prints 160 pages in 2 minutes
DLS Pro	Prints 100 pages per minute

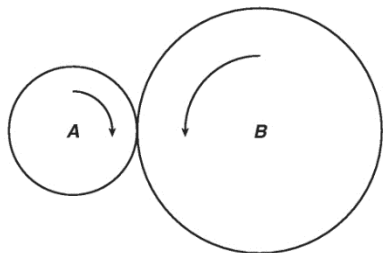
Question set [57 - 59]

A rectangle and a square have the same perimeter. Each side of the square is 8 feet. The length of the rectangle is 10 feet.

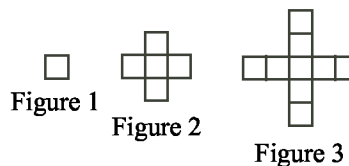
57. What is the width of the rectangle?
58. What is the area of the rectangle?
59. Which shape is larger in area, the rectangle or the square?

62. Jesse used 10 gallons of gasoline to drive 160 miles. How much gasoline will he need to travel 256 miles?
63. Write six 1's and three plus signs in a row in such a way that the sum is 24.

64. When wheel B turns 2 times, wheel A turns 5 times. When wheel A turns 40 times, how many times does wheel B turn?



68. In the sequence shown, each figure after the first is formed by adding 4 squares to the previous figure. How many squares form Figure 100?



65. A city has a budget of \$6,000,000. It marks 10% for public welfare. What is the amount available for public welfare?

69. Carl has \$6 more than Dave. They put together their money to buy a video game, which costs \$30. How much money do they contribute individually?

66. $\frac{3}{5}$ of Mrs. Robins class are boys. If she has 16 girls in her class, how many boys are there?

Question set [70 - 71]

Frog Leapy practices leaping for the annual contest. He can make 15 leaps in a minute.

67. Michael spent \$30 of his monthly allowance, and he had $\frac{2}{5}$ of his money left. How much did he receive for his allowance each month?

70. How many leaps can he make in 40 sec?
 (A) 15 leaps
 (B) 10 leaps
 (C) 8 leaps
 (D) 6 leaps
71. How many leaps can he make in 72 sec?
 (A) 10 leaps
 (B) 16 leaps
 (C) 17 leaps
 (D) 18 leaps

GT4 (Zoom, 2020) Issue 11

72. Eden has 12 jumbo marbles to give his cousins Frank and Gerald. Since Frank is older than Gerald, Eden decides to let Frank have two times as many marbles as Gerald. How should these marbles be divided?

73. 75 sec = _____ min

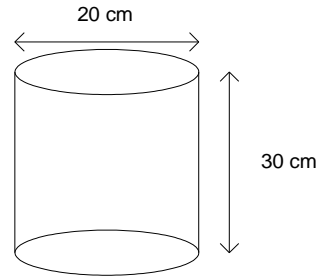
Question set [74 - 75]

Stock sense.

74. A certain stock begins the week trading at \$85 per share. If the net gain for the next four days is $\$7\frac{1}{2}$, by how much should the price of the stock increase during Friday so that the total gain for the stock during the entire five days is 20 percent?

75. Before the market opens on Monday, a stock is priced at \$25. If its price decreases \$5 on Monday, increases 10% on Tuesday, and then decreases 20% on Wednesday, what is the final price of the stock on Wednesday?

76. Find the surface area of the following cylinder.



77. Sharon has 3 times money as much Lester. If Sharon gives Lester a \$25, they will have the same amount. How much did they each have?

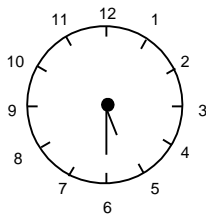
78. A dice is rolled and a coin is tossed. How many different outcomes are possible? List all of them.

79. Teresa was on the middle rung of a ladder. She went up 3 rungs, then down 5 rungs, and then up 7 rungs where she rested. Later she climbed up the remaining 7 rungs of the ladder. How many rungs did the ladder have?

80. The angles in a triangle are m , n , and q .
The relations between angles are:
 $m = 2n$, and $q = 3n$.
What kind of a triangle is this?

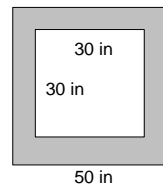
Answer Key

1. $6 \times 30 = 180$
2. $20 \times 5 = 100$
3. (a) $3 \times 3 = 9$
(b) $15 \div 3 = 5$
4. $5 + 5 = 10$
5 were not in the water.
5. $25 + 19 = 44$
6. $6 \times 50 = 300$
7. The time is $4:45 + 0:45 = 5:30$.



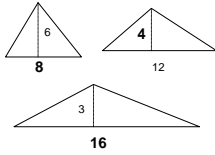
8. $15 \div 3 = 5$
9. $32 \div 4 = 8$
10. $9 + 20 + 30 = 59$
11. 3
12. $1 + 4 \times (6 - 1) = 21$
13. $6 \div 4 = 1.5 =$ 1 min 30 sec
14. $25 - 8 = 17$
 $17 - 8 = 9$
15. $5 + 3(3) =$ \$14
16. $24 \div 4 = 6$
17. $42 + 57 + 21 = 120$
18. 6 years old
19. 10 years old
20. 7 years old
21. $92 - 36 = 56$
22. $62 + 9 = 71$
 $62 + 71 =$ 133
23. $5 + 7 = 12$
24. $(5+3) + (7+3) = 12 + 6 = 18$
25. $(7 - 3) - (5 - 3) = 7 - 5 = 2$
26. $15 \times 3 = 45$
27. $8 \times .5 = 4$
 $5 - 4 =$ \$1
28. $10 + 2 \times 6 =$ \$22
29. 128 ft
30. two

31. two
32. one
33. Skunk
34. Deer
35. 20
36. 45
37. three
38. three
39. $6 \times 3 \times 4 = 72$
 $80 - 72 =$ \$8
40. length: $50 \div 2 - 10 = 15$
area: $15 \times 10 = 150$ sq. inches
41. Two rectangles + two intersecting lines
 $4 + 4 + 4 + 4 =$ 16
42. (a) $5 \times 2 = 10$
(b) $5 \times 6 - 10 = 20$
43. $2(25 + 10) = 70$ in
44. $2 \times (15 + 10) =$ 50 in
45. $15 \times 10 = 150$ sq. in.
46. 4 faces and 8 edges
47. $(50 - 20) \times (50 - 20) =$ 900 in²



48. $50 \div 10 = 5$
 $4 \times 5 = 20$
 $20 - 4 =$ 16
49. $3 \times 12 = 36$
 $36 \div 2 = 18$
 $18 - 10 = 8$
 $8 \times 10 =$ 80 sq. in.
50. $56 \div 2 = 28$
 $28 - 8 =$ 20 inches
51. area = $\frac{8 \times 13}{2} = 52$
52. $192 \div 12 = 16$ inches
53. $50 \div 2 - 10 = 15$
 $15 \times 10 =$ 150 sq. inches
54. $2(8 + 10) = 36$ inches
55. a) $2 \times 24 \div 6 =$ 8
b) $2 \times 24 \div 12 =$ 4

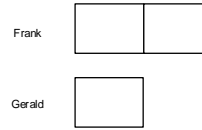
c) $2 \times 24 \div 3 = 16$



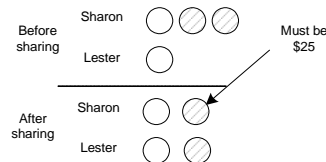
56. (a) $30 \div 2 = 15$
 $15 - 8 = 7$
 (b) $7 \times 8 = 56$
57. $8 \times 4 = 32$ (perimeter)
 $32 \div 2 = 16$ (half-perimeter)
 $16 - 10 = 6$ inches
58. $10 \times 6 = 60$ sq. in.
59. The square is larger ($8 \times 8 = 64$).
60. $64 \div 4 = 16$ (each side)
 $16 \div 2 = 8$
 $2(8+16) = 48$ in (perimeter)
61. In each minute,
 Roboprint (fastest) prints 120 pages
 Voltronn prints 30 pages
 Vantek Plus prints 80 pages
 DLS Pro prints 100 pages
62. $160 \div 10 = 16$
 $256 \div 16 = 16$ gal
63. $1+11+11+1=24$
 $1+1+11+11=24$
 $11+1+11+1=24$
 $11+1+1+11=24$
 $1+11+1+11=24$
64. $40 \div 5 = 8$
 $8 \times 2 = 16$
65. $6,000,000 \times 10\% = 6,000,000 \times 0.1 = \$600,000$
66. $16 \times \frac{3}{2} = 24$
67. $30 \div \frac{3}{5} = 50$
68. $99 \times 4 + 1 = 397$
69. $(30+6) \div 2 = \$18.00$ (Carl)
 $(30-6) \div 2 = \$12.00$ (Dave)
70. B
 $\frac{40}{60} \times 15$
 $= \frac{2}{3} \times 15$
 $= 10$ leaps
71. D
 $1 \frac{12}{60} \times 15$

$= 1 \frac{1}{5} \times 15$
 $= 15 + 3$
 $= 18$ leaps

72. Use the diagram below. There are two boxes for Frank and one for Gerald. Therefore, 3 boxes account for 12 marbles, each one representing 4 marbles. As a result, Frank can have 8 marbles and Gerald, 4 marbles.



73. $75 \text{ sec} = 1 \text{ min } 15 \text{ sec} = 1 \frac{1}{4} \text{ min}$
74. $85 \times \frac{1}{5} = 17$
 $17 - 7 \frac{1}{2} = \$9.50$
75. price ending Monday: $25 - 5 = 20$
 price ending Tuesday:
 $20 \times 10\% = 20 \times 0.1 = 2$
 $20 + 2 = 22$
 price ending Wednesday:
 $22 \times 20\% = 22 \times 0.2 = 4.40$
 $22 - 4.40 = 17.60$
76. $2(10^2\pi) = 628 \text{ cm}^2$ (two circles)
 $20\pi = 62.8 \text{ cm}$ (circumference)
 $62.8 \times 30 = 1884 \text{ cm}^2$ (lateral surface)
 $1884 + 628 = 2512 \text{ cm}^2$ (total surface)
77. Sharon has \$75, Lester has \$25.
 (See the following figure.)



78. $6 \times 2 = 12$ different outcomes
 (1, H), (1, T),
 (2, H), (2, T),
 (3, H), (3, T),
 (4, H), (4, T),
 (5, H), (5, T),
 (6, H), (6, T).
79. $3 - 5 + 7 = 5$
 $5 + 7 = 12$
 $12 + 1 + 12 = 25$
80. $m + n + q = (2 + 1 + 3)n = 180$
 $n = 30, m = 60, q = 90$
 Right triangle