

1. The tens digit is twice the units digit. If the digits are reversed, the resulting number is 27 less than the original number. What is the original number?

- A) 21 B) 36 C) 48 D) 63 E) 84

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2. What is 99.5% of 4?

- A) 0.0398 B) 0.398 C) 3.60 D) 3.98 E) 3.99

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3. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

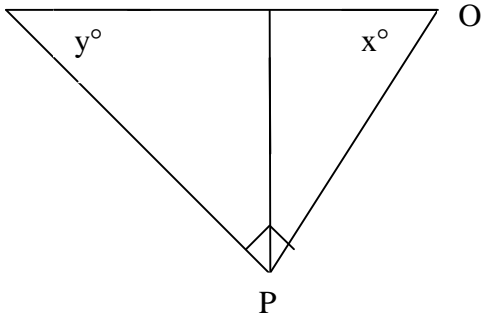
- A) The quantity in Column A is greater.  
B) The quantity in Column B is greater.  
C) The two quantities are equal.  
D) It cannot be determined from the information given.

Column A

$x^\circ$

Column B

$y^\circ$

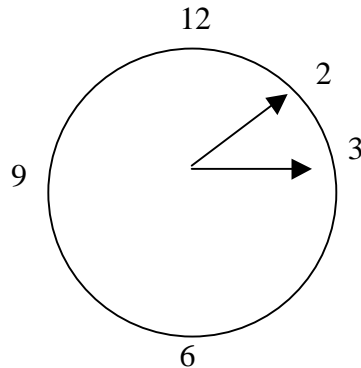


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4. If  $\frac{4}{5} = \frac{x}{4}$ , then  $x =$  A)  $\frac{15}{16}$  B)  $\frac{5}{4}$  C)  $\frac{16}{5}$  D) 5 E) 16

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5. The small (hour) hand rotates counterclockwise  $90^\circ$  and the larger (minute) hand rotates  $540^\circ$  clockwise, the time will be: A) 9:40 B) 11:10 C) 7:30 D) 2:40 E) 8:10



6. Which of the 6 areas show a projected population change for the period 1985-1995 of less than 10% of the 1985 population?

<u>Area</u>	<u>1985</u>	<u>Between 1985 and 1995</u>
I	2137	202
II	2023	313
III	1562	-176
IV	2893	298
V	2927	214

- A) I only  
B) III only  
C) I and V only  
D) IV and V only  
E) I, III, and V only

- 
7. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater.  
B) The quantity in Column B is greater.  
C) The two quantities are equal.  
D) It cannot be determined from the information given.

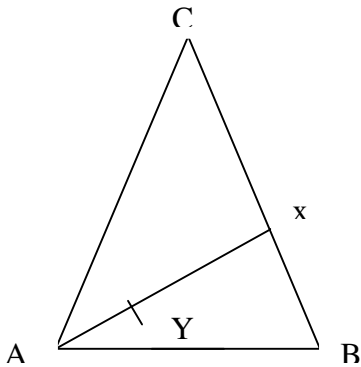
Column A

length Ay

Column B

Length By

In equilateral triangle ABC, x is the midpoint of side BC, and y is the midpoint of segment AX



8. If the middle digits of 3483 are interchanged the resulting number is:

- A) 36 less than 3483
- B) 360 less than 3483
- C) equal to 3483
- D) 36 more than 3483
- E) 360 more than 3483

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9. Henry is three times as old as Jane. In 3 years he will be  $x$  years old. In terms of  $x$  how old will Jane be then?

- A)  $\frac{x}{3}$
- B)  $\frac{x}{3} + 1$
- C)  $\frac{x}{3} + 2$
- D)  $\frac{x}{3} - 1$
- E)  $\frac{x}{3} - 2$

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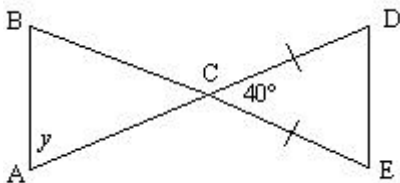
10. For which of the following numbers is the reciprocal of one of the numbers equal to the square of the other?

- I. 1, 1
- II.  $\frac{1}{3}, 3$
- III. 0.25, 2

- A) I only
- B) II only
- C) III only
- D) I and II only
- E) I and III only

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11.



If  $AB \parallel DE$  and  $CD = CE$ , what is the value of  $y$ ?

- A) 50
  - B) 60
  - C) 65
  - D) 70
  - E) Cannot be determined from the information given.
-

12. Each Column consists of two quantities one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater
- B) The quantity in Column B is greater
- C) The two quantities are equal
- D) It cannot be determined from the information given.

$$c=3d-2$$

$$d>c$$

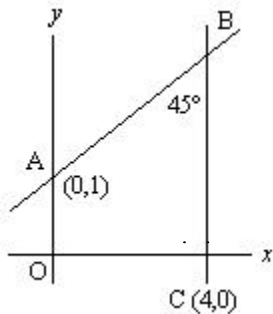
Column A

d

Column B

1

13.



In the figure above, if  $AO \parallel BC$ , what is the area of the quadrilateral ABCO?

- A) 8
- B) 9
- C) 12
- D) 17
- E) It cannot be determined from the information given

14. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater
- B) The quantity in Column B is greater
- C) The two quantities are equal
- D) It cannot be determined from the information given.

$3n + 1$  is a multiple of 5 and  $n$  is a positive integer less than 10.

Column A

n

Column B

6

15. A group of students went out to dinner. Each student's meal cost \$4.50 before the tip was added. The total bill was \$45.00 including a 10% tip. How many students went out to dinner.

- A) 8
- B) 9
- C) 10
- D) 18
- E) 20

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16. If  $a + b = 5$ , and  $a + c = 10$ , what does  $b - c$  equal?

- A) -5
- B) +5
- C) -13
- D) +13
- E) Cannot be determined from the information given

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17. How many hundredths of a mile will John travel on a 10 mile trip.

- A) 1000
- B) 100
- C) 10
- D) 1
- E) 1/10

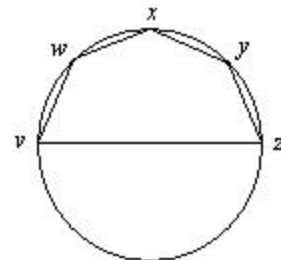
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18. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater
- B) The quantity in Column B is greater
- C) The two quantities are equal
- D) It cannot be determined from the information given.

Column A  
The perimeter of polygon  
vwxyz

Column B  
3



The diameter of circle  $vz$ ,  $= 1$ ;  $v, w, x, y$ , and  $z$  are on the perimeter of the circle.

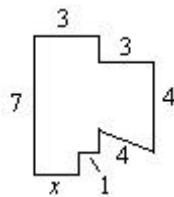
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19. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater
- B) The quantity in Column B is greater
- C) The two quantities are equal
- D) It cannot be determined from the information given.

Column A

x



Column B

1

---

20. If 12.5 percent of 40 percent of x of 40, then x =

- A) 400
- B) 500
- C) 600
- D) 750
- E) 800

---

21. If A and B are different integers both divisible by 3, which of the following are not necessarily true?

- A) AC is divisible by 9
- B) A-B is divisible by 3
- C)  $A^2 + B^2$  is divisible by 3
- D) A+B is divisible by 3
- E) A+B is divisible by 6

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22. If an order microcomputer has 640 K bytes of random access memory (RAM), whereas a newer computer has 5120 K bytes (K=1,024) of RAM, then the newer has how many times more memory than the older one?

- A) 6
  - B) 6K
  - C) 8
  - D) 8K
  - E) 448
-

23. If there are 5 red and 9 green jelly beans in jar A and 13 red and 6 green jelly beans in jar B, what is the smallest number of beans that would have to be switched if you wanted twice the number of red and twice the number of green jelly beans in jar A in jar D?

- A) 5
- B) 7
- C) 8
- D) 11
- E) 14

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24. Given the diameter of a circle equals one side of a square. If the area of the square is  $x$  and the area of the circle is  $y$ , which of the following are true?

I.  $x < 2y$

II. the square root of  $x = \frac{y}{2}$

III. the square root of  $x = \frac{y}{p}$

- A) I only
- B) II only
- C) III only
- D) I and II only
- E) None of the above

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25. If  $6x = 13y$ , what is the value of  $11x$  in terms of  $y$ ?

- A)  $\frac{11y}{6}$
  - B)  $\frac{12y}{78}$
  - C)  $\frac{11y}{13}$
  - D)  $\frac{66y}{13}$
  - E)  $\frac{143y}{6}$
-

26. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater
- B) The quantity in Column B is greater
- C) The two quantities are equal
- D) It cannot be determined from the information given.

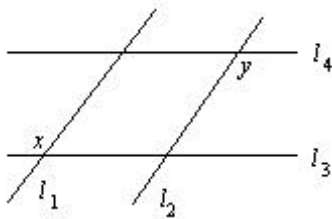
Given that parallel lines  $l_1$  and  $l_2$  intersect parallel lines  $l_3$  and  $l_4$ .

Column A

$$x + y$$

Column B

$$2x$$



27. If a cook finds that 12 out of 20 potatoes are good enough to be used for his recipe, what is the ration of potatoes that are good enough to be used to those that are not good enough to be used?

- A) 3 : 5
- B) 5 : 3
- C) 2 : 3
- D) 3 : 2
- E) 3 : 1

28. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater
- B) The quantity in Column B is greater
- C) The two quantities are equal
- D) It cannot be determined from the information given.

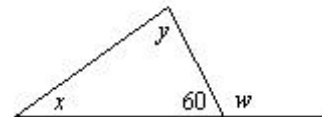
$$y > x$$

Column A

$$2y$$

Column B

$$w$$



29. Reduce  $\frac{12x^2}{15x}$  to its lowest terms

- A)  $\frac{4x^2}{5x}$
- B)  $8x^2$
- C)  $\frac{4x}{5}$
- D)  $\frac{4}{5}$
- E)  $12x$

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30. If 4 dollars priced shirts costs  $x$  dollars, then how much would 100 of these shirts cost?

- A)  $25x$
- B)  $5x$
- C)  $\frac{x}{5}$
- D)  $\frac{5}{x}$
- E)  $\frac{x}{25}$

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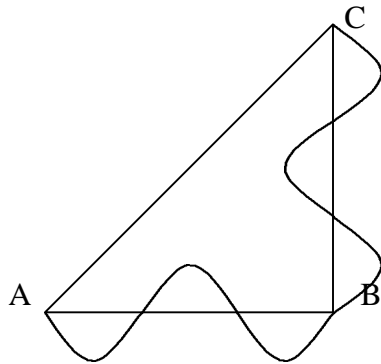
31. John gets paid  $X$  dollars for each vacuum cleaner he sells per month for the first 20 vacuum cleaner over 20. If he earns \$2,200 for one month, how many vacuum cleaners has to be sold

- A) 24
- B) 25
- C) 50
- D) 80
- E) It cannot be determined from the information given

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32. In the figure below, ABC is a right triangle, and the curved path is made up of 6 semicircles of equal diameter. If the total length of this curved path is  $12p$ , then what is the area of the triangle ABC?

- A) 18
- B) 24
- C) 36
- D) 48
- E) 72



33. If  $a$  is an odd number, then which of the following best describes  $a^2 - 3a - 4$ .

- A) It is even
  - B) It is odd
  - C) It is even or odd
  - D) It is divisible by 3
  - E) It cannot be determined from the information given
- 

34. If  $A$  candies cost  $B$  dollars, how many candies can be bought for  $C$  cents

- A)  $\frac{AC}{B}$
  - B)  $\frac{B}{100AC}$
  - C)  $\frac{AB}{100C}$
  - D)  $\frac{BC}{100A}$
  - E)  $\frac{AC}{100B}$
- 

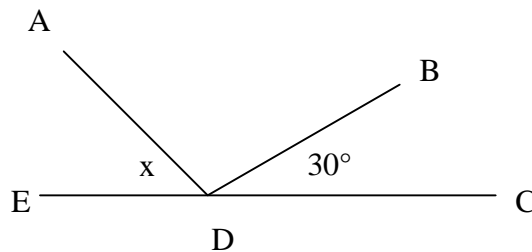
35. If Mary had to pay 10% interest from days 1 and 112, and 20% interest on days 113 through 201, then for how many days did she pay 20% interest?

- A) 87
  - B) 88
  - C) 89
  - D) 188
  - E) 189
- 

36. Given:  $EDC$  is a straight line and angle  $CDB = 30^\circ$ .

The number of degrees in angle  $ADB$  is 12 more than the angle  $x$ , what is the number of degrees in angle  $x$ ?

- A) 50
- B) 67
- C) 69
- D) 78
- E) 80



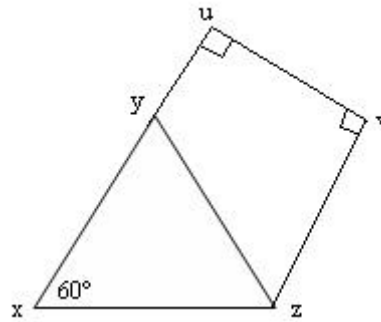
37. Of the following, which is the least?

- A)  $\frac{11}{7}$
- B)  $\frac{11}{8}$
- C)  $\frac{8}{3}$
- D)  $\frac{7}{5}$
- E)  $\frac{3}{2}$

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38. Given the figure, what is the area of triangle xyz?

- A) 12
- B) 24
- C) 40
- D) 48
- E) 100



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39. Which of the following lines are parallel to  $3y = 12x + 5$ ?

- A)  $y = 12x + 15$
- B)  $y = 12x + 5$
- C)  $y = 24x + 32$
- D)  $y = 3x + 15$
- E)  $y = 4x + 5$

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40. A hot dog stand at the state fair sold 400 hot dogs at 25 cents each. If state got 56 in sales tax from the sale of these hot dogs, then what percentage was the sales tax?

- A) .06%
  - B) .6%
  - C) 1.5 %
  - D) 6%
  - E) 15%
-

41. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater
- B) The quantity in Column B is greater
- C) The two quantities are equal
- D) It cannot be determined from the information given.

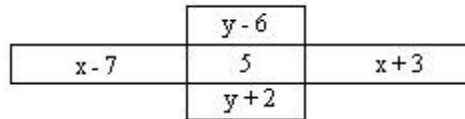
The sum of the three number in the Column is equal to the sum of the three numbers in the row.

Column A

Column B

$x$

$y$

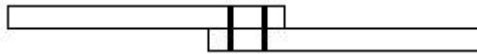


42. Points M, N, O and P lie on the same line, but not necessarily in that order. Given that  $MN=6$ ,  $NO=1$ , and  $OP=4$ , what is the length of  $MO$ ?

- A) 1
- B) 3
- C) 7
- D) 11
- E) Cannot be determined from the information given

43. In the figure below, two 20 foot planks are bolted together to make a bridge. The length of the overlapping portion is 4 feet. What is the length of the bridge.

- A) 16 feet
- B) 20 feet
- C) 32 feet
- D) 36 feet
- E) 40 feet



44. A, B, C and D are 4 points on a line. Which of the following could be the correct order relationship for these points based on the following distance relationships?

- A) C, B, A, D
- B) A, C, B, D
- C) A, C, D, B
- D) C, D, B, A
- E) B, C, A, D

	A	B	C	D
A	0	2	5	3
B	2	0	3	5
C	5	3	0	8
D	3	5	8	0

45. Which of the following will have a vertical line as its graph?

A)  $x + y = -1$

B)  $x - y = 0$

C)  $y = 1$

D)  $\frac{x - 2x + 1}{x + 1} = 0$

E) None of the Above

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46.  $\frac{8y}{4} - \frac{5y}{2} + \frac{9y}{16} =$

A)  $\frac{y}{16}$

B)  $\frac{2y}{8}$

C)  $\frac{42}{9}$

D)  $\frac{1}{16}$

E)  $\frac{3y}{4}$

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47. If A, B, and C have the values indicated below, in which of the following are A, B, and C in the order from greatest to least?

$$A = 2 - \frac{19}{10} \quad B = 2 - 1.99 \quad C = \frac{2}{9}$$

A) A, B, C

B) B, C, A

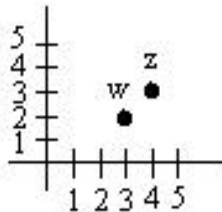
C) C, A, B

D) C, B, A

E) A, C, B

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48. Which of the following points when plotted on the grid above will be half as far from  $w = (3,2)$  as from  $z = (4,3)$ ?



A) (2,1)

B) (2,2)

C) (4,1)

D) (3,3)

E) (5,4)

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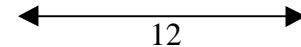
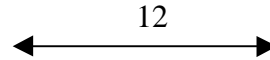
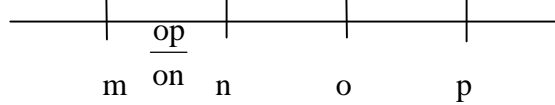
49. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

Column A

$\frac{mn}{no}$

Column B



50. If  $4x^3 - z = (x)(2x)^2 - 6$ , then  $z =$

- A)  $-6$
- B)  $2x^3 + 6$
- C)  $6$
- D)  $66$
- E)  $(4)(6)^3$

51. In Dowieville, the average (arithmetic mean) of rainfall for four years was 63 inches. If the amount of rainfall in the first three years was 62 inches, 56 inches, and 68 inches, respectively, how much rain fell in the fourth year?

- A) 70
- B) 66
- C) 63
- D) 62
- E) 58

52. A roll of sod 25 ft. long and 1 yd. wide costs \$52. If a new lawn requires 975 sq. ft. of sod, how much will it cost?

- A) \$225
- B) \$478
- C) \$676
- D) \$1,300
- E) \$2,250

53. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

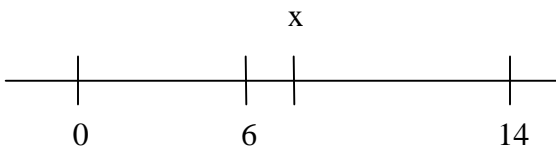
- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

Column A

$x$

Column B

$14 - x$



---

54. What value(s) of  $x$  solve the equation  $x^2 + 2x + 3 = 0$ ?

- A) -1 and -3
- B) -1 and 3
- C)  $\frac{-1+2}{2}$  and  $\frac{-1-2}{2}$
- D)  $\frac{-1+2}{2}$  only
- E) No real solution

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55. What is the value of  $x^3 + 6x^2y + 9x^2$  if  $x = 3$  and  $y = 9$ ?

- A) 900
  - B) 2420
  - C) 2700
  - D) 2840
  - E) 3200
-

56. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

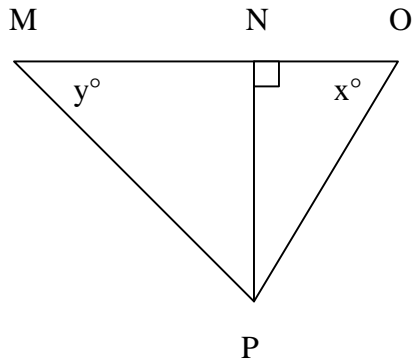
- E) The quantity in Column A is greater.
- F) The quantity in Column B is greater.
- G) The two quantities are equal.
- H) It cannot be determined from the information given.

Column A

$$\frac{MN}{MP}$$

Column B

$$\frac{MP}{MO}$$



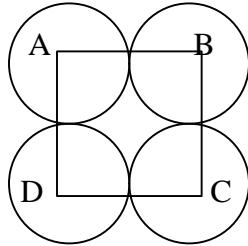
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57. A rabbit ate  $\frac{3}{8}$  of a carrot at noon then  $\frac{1}{3}$  of the remainder at 6:00 p.m. What part of the carrot remained uneaten?

- A)  $\frac{5}{24}$
  - B)  $\frac{3}{8}$
  - C)  $\frac{1}{2}$
  - D)  $\frac{5}{12}$
  - E)  $\frac{19}{24}$
-

58. Four circles of radius 2, with centers a, b, c, and d are arranged symmetrically around point o. What is the area of the shaded region?

- A)  $16 - 4p$
- B)  $4p$
- C)  $4 - p$
- D)  $16 - 2p\sqrt{2}$
- E)  $16 - p$



59. If A is an even number, and B is divisible by 2, what is the largest number by which  $A^2B^2$  must be divisible?

- A) 2
- B) 16
- C) 32
- D) 64
- E) 132

60. In Mary's stamp collection, 25% of the stamps are from the United States, 40% of all the stamps are over 20 years old, and 40% of the stamps over 20 years old are from England. What is the maximum percent of stamps in the collection that could be from the United States and over 20 years old?

- A) 14%
- B) 16%
- C) 20%
- D) 24%
- E) 25%

61. If the Mexican peso is worth 14 cents, how many cents are there in 140 pesos?

- A) 0.01
- B) 10.0
- C) 19.60
- D) 1860
- E) 1960

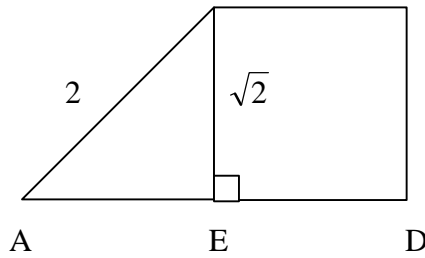
62. If  $a = 1 + \frac{1}{3} + \frac{1}{5} + \frac{1}{9} + \frac{1}{15}$  and  $b = 1 - \frac{a}{2}$ , then a exceeds b by:

- A)  $\frac{1}{15}$
- B)  $\frac{2}{15}$
- C)  $\frac{11}{15}$
- D)  $\frac{78}{90}$
- E)  $\frac{8}{-}$

63. What is the perimeter of the trapezoid ABCD above?

B C

- A) 3
- B)  $2 + 4\sqrt{2}$
- C)  $3 + 2x + \sqrt{2}$
- D)  $3\sqrt{2} + 2x$
- E)  $2(x + \sqrt{2} + 1)$



64. On a 60 mile trip, a bicyclist rode the first 20 miles at 8 miles per hour, the second 20 miles at 12 mph. For what fraction of time did the bicyclist ride at 8 mph?

- A)  $\frac{4}{15}$
- B)  $\frac{1}{3}$
- C)  $\frac{2}{5}$
- D)  $\frac{15}{37}$
- E)  $\frac{37}{6}$

65. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

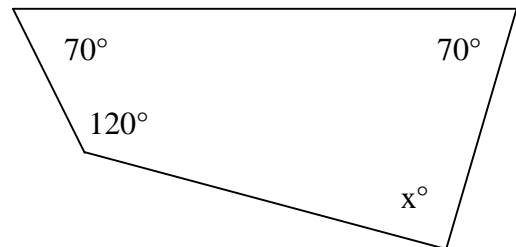
- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

Column A

110

Column B

$x^\circ$



66. Solve the inequality:  $a^2 - 5a < 0$ .

- A)  $a < -5$
- B)  $-5 < a < 0$
- C)  $A < 5$
- D)  $0 < a < 5$
- E)  $5 < a$

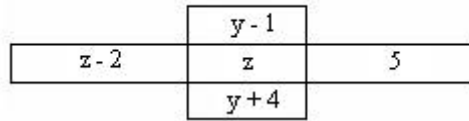
67. If each item were reduced by 10 percent, how much would 4 gallons of ice cream cost?

- A) \$10.31
- B) \$11.45
- C) \$14.04
- D) \$28.08
- E) \$31.20

Item	Price
$\frac{1}{2}$ gal. milk	\$0.95
1lb. cheese	2.45
2 Ibs. Bread	2.20
1lb. butter	1.95
$\frac{1}{2}$ gal. ice cream	3.90

68. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.
- A) The quantity in Column A is greater.
  - B) The quantity in Column B is greater.
  - C) The two quantities are equal.
  - D) It cannot be determined from the information given.

The sum of the three numbers in the Column is equal to the sum of the three numbers in the row.



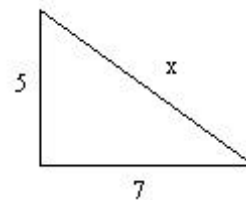
Column A

$z$

Column B

$\frac{y}{2}$

69. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.
- A) The quantity in Column A is greater.
  - B) The quantity in Column B is greater.
  - C) The two quantities are equal.
  - D) It cannot be determined from the information given.



Column A

$x$

Column B

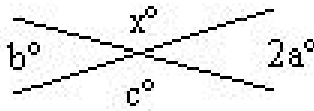
9

70. Initially there are 24 cherries in a bowl. If Sue eats  $\frac{1}{4}$  of the cherries and John eats  $\frac{1}{3}$  of the cherries that remain, how many cherries are left in the bowl?

- A) 6
  - B) 8
  - C) 10
  - D) 12
  - E) 14
- 

71. In the figure below two lines intersect, which of the following must equal  $90 - \frac{x}{2}$ ?

- A)  $a^\circ$
- B)  $2b^\circ$
- C)  $b^\circ + c^\circ$
- D)  $x^\circ + b^\circ$
- E)  $a^\circ + c^\circ$



---

72. Which of the following is closest to the square root of 79?

- A) 8.4
  - B) 8.6
  - C) 8.8
  - D) 9.0
  - E) 9.2
- 

73. If a printer can print 20 posters in 15 minutes, how many hours will it take her to print 320 posters at the same rate?

- A) 3
  - B) 4
  - C) 16
  - D) 120
  - E) 240
- 

74. If  $y = -2$  and  $z = 0$ , then  $4y^2z + \frac{2}{2y}$

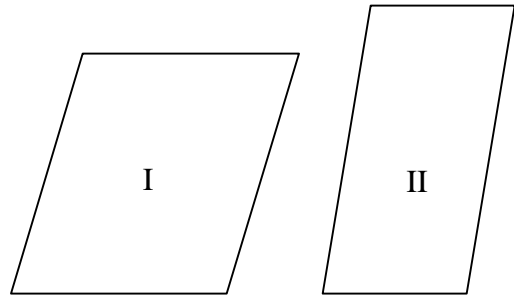
- A) 16
- B) -4
- C) 4
- D) 0
- E) -16

75. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

Column A  
Area of I  
-----  
Perimeter of I

Column B  
Area of II  
-----  
Perimeter of II



76. In a right triangle,  $AB = BC = \frac{3}{4}(A)(C)$  What percent of the perimeter of the triangle is  $BC + AC$ ?

- A) 6%
- B) 60%
- C)  $66\frac{2}{3}\%$
- D) 70%
- E) 75%

77. Given that the area of a circle is  $3:14$ , what is the ratio of  $\frac{\text{circumference}}{\text{diameter}}$  ?

- A) 1
- B)  $2r$
- C)  $\frac{1}{2}$
- D)  $p^2$
- E)  $p$

78. A painter completes  $\frac{3}{8}$  of a job in 9 days. How many more days will it take to finish the job?

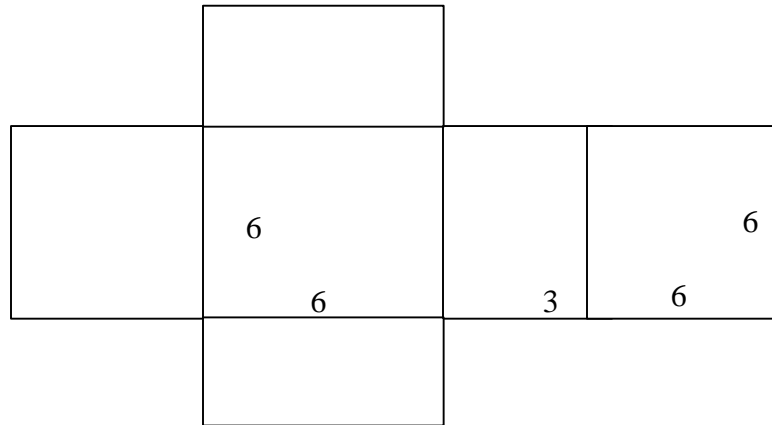
- A) 24
- B) 15
- C) 10
- D) 25
- E) 21

79. If  $ax - bx > bx - ax$ , how much greater is  $ax - bx$  than  $bx - ax$ ?

- A)  $\frac{a-b}{b-a}$
- B)  $(2x)(a-b)$
- C)  $(2x)(b-a)$
- D)  $(x)(a-b)$
- E)  $-2x$

80. A closed rectangular box is formed by folding the cut-out box along the dotted lines. What is the volume of the box?

- A) 54
- B) 66
- C) 108
- D) 216
- E) 432



81. A diver competed in a meet and received the following scores for his six dives. If his worst dive (lowest score) was not included, what was the average (arithmetic mean) of the following scores he received?

Dive 1:	9.4	Dive 4:	8.6
Dive 3:	8.7	Dive 5:	7.3
Dive 5:	6.5	Dive 6:	7.5

- A) 8.0
- B) 8.1
- C) 8.2
- D) 8.3
- E) 8.4

82. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

$$y < 0$$

y is an integer

Column A

Column B

The maximum value of

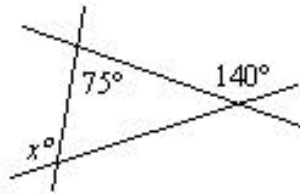
$$\frac{1}{6y^2 + 1}$$

The maximum value of

$$\frac{1}{7y^2 - 1}$$

83. Given the figure below, what is the value of  $x^\circ$ ?

- A)  $100^\circ$
- B)  $110^\circ$
- C)  $115^\circ$
- D)  $120^\circ$
- E) Cannot tell



84. If 3 liters of vinegar is added to 2 liters of water, what percent by volume of the resulting solution is water?

- A) 60%
- B) 40%
- C) 25%
- D) 15%
- E) 10%

85. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

Column A

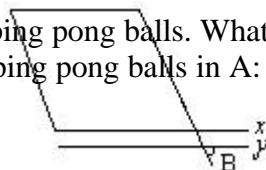
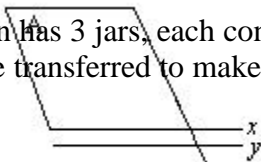
Column B

Angle A

Angle B

(Note: Figures are not drawn to scale)

86. John has 3 jars, each containing 8 ping pong balls. What is the LEAST number of ping pong balls that must be transferred to make the ratio [ping pong balls in A: ping pong balls in B: ping pong balls in C] 3:2:1?



- A)7
- B)6
- C)5
- D)4
- E)3

---

87. If  $x - y = z$ , and  $x + z = 3y$ , what is the ratio of  $x$  to  $z$ ?

- A) 1:1
- B) 1:2
- C) 2:1
- D) 1:3
- E) 3:1

---

88. What is the price per square foot for linoleum if it costs \$450.63 to put flooring in a pantry which is 7 by 6 feet?

- A)  $\frac{\$(3.20)^2}{\text{ft.}^2}$
- B)  $\frac{\$10.73}{\text{ft.}^2}$
- C)  $\frac{\$4.20}{\text{sq.ft.}}$
- D)  $\frac{\$10.76}{\text{ft.}^3}$
- E)  $\frac{\$6.40}{\text{ft.}}$

---

89. What is the next number of the series: 4, 5, 9, 10, 16, 17, ...?

- A) 18
- B) 21
- C) 24
- D) 25
- E) 32

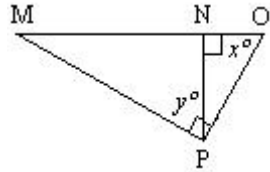
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90. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

Column A

$x^\circ$



Column B

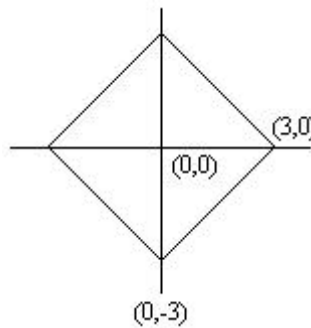
$y^\circ$

91. If  $4x + 6 = 30$  then  $x - 6 = ?$

- A) 0
- B) 2
- C) 4
- D) 6
- E) 9

92. In the figure below, the x and y axis divides the enclosed area into 4 equal regions. Which of the following is closest to the area of the figure?

- A) 9
- B)  $12\sqrt{2}$
- C)  $12\sqrt{3}$
- D) 18
- E) 36



93. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

John's height is 150% of George's height. George height is 50% of Mary's height.

<u>Column A</u>	<u>Column B</u>
Mary's Height	John's Height

94.

<u>Item</u>	<u>Price</u>
½ gal. milk	\$0.95
1 lb. cheese	2.45
2lbs. bread	2.20
1 lb. butter	1.95
½ gal. ice cream	3.90

If one of each item were brought, what is the average (mean) price of the 5 items?

- A) \$2.36
- B) \$2.19
- C) \$2.29
- D) \$2.39
- E) \$2.34

95.



If two points, C and B are each placed to the right of Point A on line l above so that  $3AB = 4AC$ , what will be the value of  $\frac{BC}{AC}$ ?

- (A)  $\frac{1}{4}$     B)  $\frac{1}{3}$     C)  $\frac{3}{4}$     D)  $\frac{4}{3}$     E) It cannot be determined from the information given

96. Which of the following is closest to the square root of  $\frac{2}{5}$ ?

- A)  $\frac{1}{3}$
- B)  $\frac{2}{3}$
- C)  $\frac{1}{2}$
- D)  $\frac{3}{4}$
- E)  $\frac{3}{5}$

---

97. Mary has 12 apples, some red, some green. Each of the following could be ratios of red to green apples EXCEPT:

- A) 1:1
- B) 2:1
- C) 3:1
- D) 4:1
- E) 5:1

---

98. Each column consists of two quantities, one in Column A and one in Column B. Compare the two quantities and choose.

- A) The quantity in Column A is greater.
- B) The quantity in Column B is greater.
- C) The two quantities are equal.
- D) It cannot be determined from the information given.

$$\frac{x < 3y - 4}{y > 0}$$

Column A

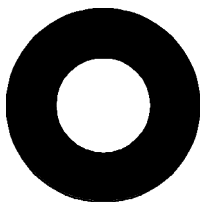
x

Column B

y

---

99.



In the figure above, the diameter of the larger circle is four times the radius of the smaller circle. If the two circles have the same center, what is the ration of the shaded region to the area of the smaller circle?

- A) 1:1
  - B) 2:1
  - C) 3:1
  - D) 4:1
  - E) 5:1
-