

$$\binom{7}{3} = 35$$

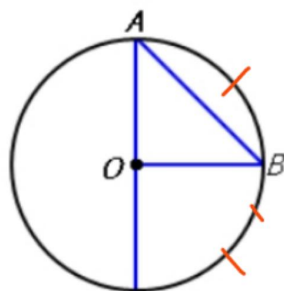
Column A

Column B

Number of different triangles possible using the given points as vertices.

42

A	The quantity in Column A is greater
<input checked="" type="radio"/> B	The quantity in Column B is greater
C	The two quantities are equal
D	The relationship cannot be determined from the information given



O is the center of the circle.

Column A

Column B

Length of AO

Length of AB

A	The quantity in Column A is greater
B	The quantity in Column B is greater
C	The two quantities are equal
<input checked="" type="radio"/> D	The relationship cannot be determined from the information given

$$7(2x+1) + 3 = 14x + 10$$

When the even integer n is divided by 7, the remainder is 3.

Column A	Column B
The remainder when n is divided by 14	10

A	The quantity in Column A is greater
B	The quantity in Column B is greater
<u>C</u>	The two quantities are equal
D	The relationship cannot be determined from the information given

Column A	Column B
0.05 percent of 4000	$1/200$ of 4000
$4000 \times \frac{0.5}{100}$	
A	The quantity in Column A is greater
<u>B</u>	The quantity in Column B is greater
C	The two quantities are equal
D	The relationship cannot be determined from the information given

For positive numbers X , Y , and Z , $\frac{Z}{Y} = \frac{35}{6}$ and $\frac{Z}{X} = \frac{35}{8}$

Column A	Column B
X	Y
A	The quantity in Column A is greater
<u>B</u>	The quantity in Column B is greater
C	The two quantities are equal
D	The relationship cannot be determined from the information given

The average (arithmetic mean) weight of 8 children is 100 pounds.

No child weighs exactly 100 pounds.

Column A

Column B

Number of children who weigh
more than 100 pounds.

Number of children who weigh
less than 100 pounds.

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

Column A

Column B

Product of even integers from -12
to 6 inclusive.

Product of odd integers from -5 to
13 inclusive.

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

n is a positive integer.	6	9
n is not divisible by 4.	2	1
n is not divisible by 5.	1	4
Column A	Column B	
The remainder when n is divided by 4	The remainder when n is divided by 5	
A	The quantity in Column A is greater	
B	The quantity in Column B is greater	
C	The two quantities are equal	
D	The relationship cannot be determined from the information given	

$m = 10^{32} + 2$	
When m is divided by 11, the remainder is r.	
Quantity A	Quantity B
r	3
	100
A	Quantity A is greater
B	Quantity B is greater
C	The two quantities are equal
D	The relationship cannot be determined from the information given

$$4 = 2^2$$

$$d = 3 \quad n = 4$$

n is a positive integer that is greater than 3 and has d positive divisors.

Quantity A

n

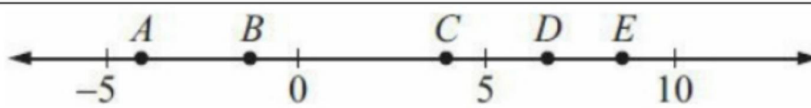
Quantity B

2^{d-1}

$$n = 36 = 2^2 \cdot 3^2$$

$$d = 9$$

A	Quantity A is greater
B	Quantity B is greater
C	The two quantities are equal
<u>D</u>	The relationship cannot be determined from the information given



From the 5 point A, B, C, D, and E on the number line above, 3 different points are to be randomly selected. What is the probability that the coordinates of the 3 points selected will all be positive?

<u>A</u>	1/10
B	1/5
C	3/10
D	2/5
E	3/5

$$\frac{C^3}{C_5^3}$$

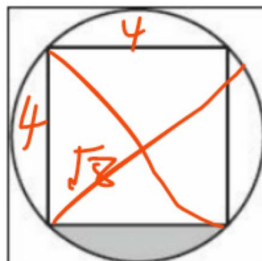


$$30 - 80$$

$$60 - 40$$

A flat, rectangular flower bed with an area of 2,400 square feet is bordered by a fence on three sides and by a walkway on the fourth side. If the entire length of the fence is 140 feet, which of the following could be the length, in feet, of one of the sides of the flower bed? Indicate all such lengths.

A	20
B	30 ✓
C	40 ✓
D	50
E	60 ✓
F	70
G	80 ✓
H	90



In the figure above, if the square inscribed in the circle has an area of 16, what is the area of the shaded region?

A	$2\pi - 1$
<u>B</u>	$2\pi - 4$
C	$4\pi - 2$
D	$4\pi - 4$
E	$8\pi - 4$

$$x=0 \quad y=20$$

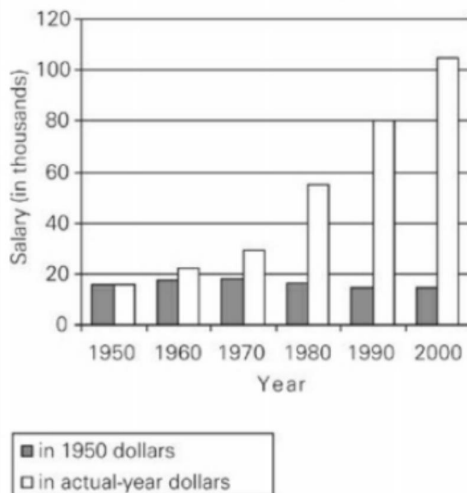
$$y=0 \quad x=15$$

In the xy -plane, triangular region R is bounded by the lines $x = 0$, $y = 0$, and $4x + 3y = 60$. Which of the following points lie inside region R ? Indicate all such points.

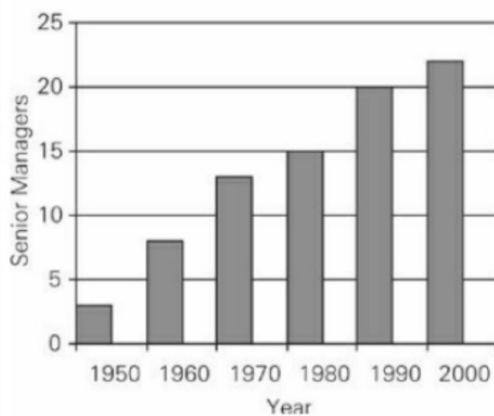
B D

A	(2, 18)
B	(5, 12)
C	(10, 7)
D	(12, 3)
E	(15, 2)

Average Salaries of Senior Managers at Company Y



Number of Senior Managers at Company Y



If from 1980 to 2007, the number of senior managers increased by 60

A

$$15 \times 1.6 = 24 - 2 = 22$$

percent, then what was the increase in the number of senior managers from 2000 through 2007, inclusive?

A	2
B	4
C	6
D	9
E	12

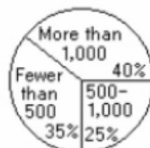
Which of the following can be inferred from the data?

<input checked="" type="checkbox"/> A	From 1990 to 2000, the average salary, in 1950 dollars, increased by more than 10%.
<input checked="" type="checkbox"/> B	In 1960, there were fewer than 5 senior managers
<input checked="" type="checkbox"/> C	For the decades shown, the number of senior managers increased by the greatest percentage between 1980 and 1990.

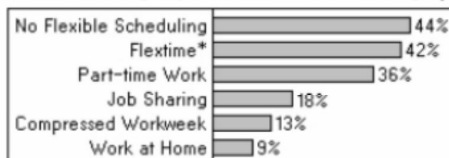
These questions refer to the following graphs.

TYPE OF WORK SCHEDULING IN 300 SURVEYED COMPANIES

Distribution of Companies by Number of Employees



Percent of Companies Not Offering Flexible Scheduling and Percent Offering Any of Five Flexible-Scheduling Options



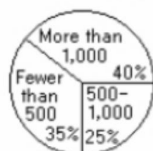
*Flextime is the option given to full-time employees to vary the time that the workday begins and ends.

What is the greatest number of the companies surveyed that could have offered both the compressed-workweek option and the work-at-home option? $9\% \times 300$

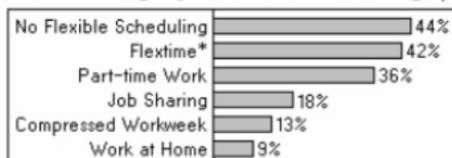
A	12
B	22
C	27
D	39
E	66

TYPE OF WORK SCHEDULING IN 300 SURVEYED COMPANIES

Distribution of Companies by Number of Employees



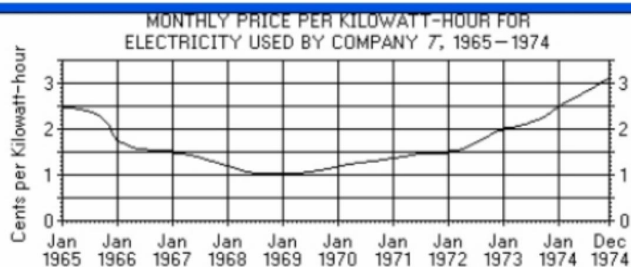
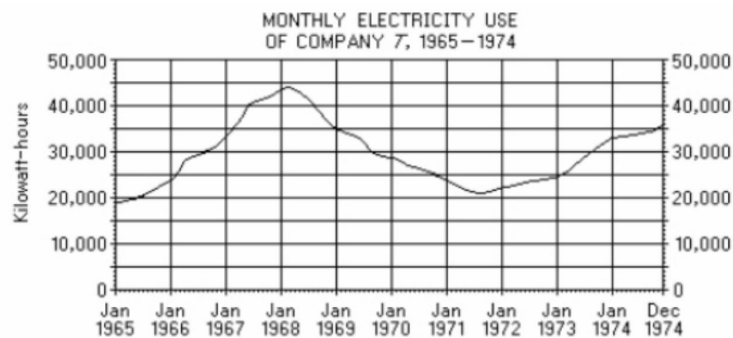
Percent of Companies Not Offering Flexible Scheduling and Percent Offering Any of Five Flexible-Scheduling Options



*Flextime is the option given to full-time employees to vary the time that the workday begins and ends.

If $\frac{1}{5}$ of the companies with fewer than 500 employees and $\frac{1}{10}$ of those with more than 1,000 employees offered the job-sharing option, what fraction of the companies with 500-1,000 employees offered this option?

A	$\frac{1}{20}$
B	$\frac{1}{20}$
C	$\frac{4}{25}$
D	$\frac{1}{5}$
E	$\frac{7}{25}$



Note: The graphs are drawn to scale; smooth curves have been drawn through the monthly data points.

In how many of the ten years from 1965 through 1974 was the electricity use of Company *T* between 25,000 and 30,000 kilowatt-hours for at least one month?

A	None
B	One
C	Two
D	Three
E	Four

Approximately how many kilowatt-hours of electricity did Company *T* use during the entire year of 1971?

A	190,000
B	210,000
C	230,000
D	250,000
<input checked="" type="radio"/> E	270,000