Examrace

SAT Questions and Answers Model Paper-4 Important Questions Section D

Section - D

Time - 25 minutes

18 Questions

1. If a multiplied by a number is equal to 6, what is the number?

(A) $\frac{1}{3}$

(B) $\frac{1}{2}$

(C) $\frac{2}{3}$

(D) $\frac{3}{4}$

(E) $\frac{3}{2}$

2. In the xy -coordinate plane, which of the following points is a distance of 6 from (0,0) ?

(A) (6,0)

(B) (5, -1)

(C) (4,2)

(D) (-2,4)

(E) (-3, -3)

3. In the pattern below, the first letter is S and the letters S, H, O, W, E, and R repeat continually in the order. What is the 65^{th} letter in the pattern?

S H O W E R S H O W ...

(A) S

(B) H

(C) W

(D) E

(E) R

4. The table below shows the cost of renting a piece of equipment from stores A and B. Each store charges a larger amount for the first hour and a smaller constant amount for each additional hour. For what number of hours will the two stores charge the same amount?

RENTAL COST

Hours	Store A	Store B
1	$8.00	$13.00
2	$11.50	$15.50
3	$15.00	$18.00
4	$18.50	$20.50

(A) 6

(B) 7

(C) 8

(D) 9

(E) 10

5. Which of the following is NOT a solution of the equation $y^2 = x + x + x + x$?

(A) $x = 4, y = 4$

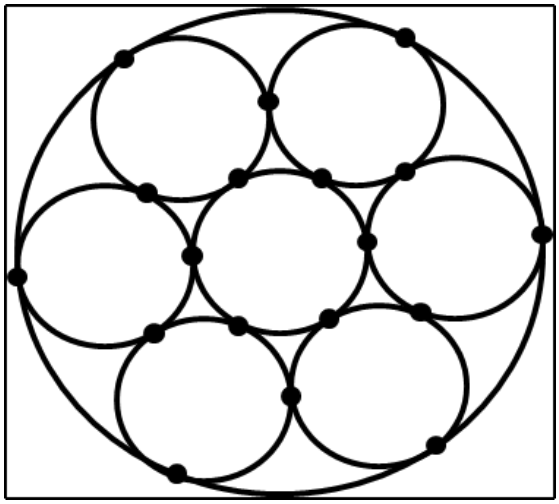
(B) $x = 4, y = -4$

(C) $x = 8, y = 16$

(D) $x = 16, y = 8$

(E) $x = 25, y = 10$

6. In the figure below, the seven small circles, which have equal radii, and the large circle are tangent at the indicated points. If the area of the large circle is 36π, what is the area of one of the small circles?



(A) 3π

(B) $\frac{24}{7}\pi$

(C) 4π

(D) $\frac{32}{7}\pi$

(E) $\frac{36}{7}\pi$

7. On the number line, point p has coordinate $\frac{1}{2}$, and point Q has coordinate 2. If point R is $\frac{1}{4}$ of the way from p to Q, what is the coordinate of R?

(A) $\frac{3}{4}$

(B) $\frac{7}{8}$

(C) 1

(D) $\frac{9}{8}$

(E) $\frac{5}{4}$

8. If v and x are positive such that $v = \frac{7}{3}b$ and $b = \frac{x^2}{2}$, what is the least possible value of v?

(A) 14

(B) 21

(C) 28

(D) 35

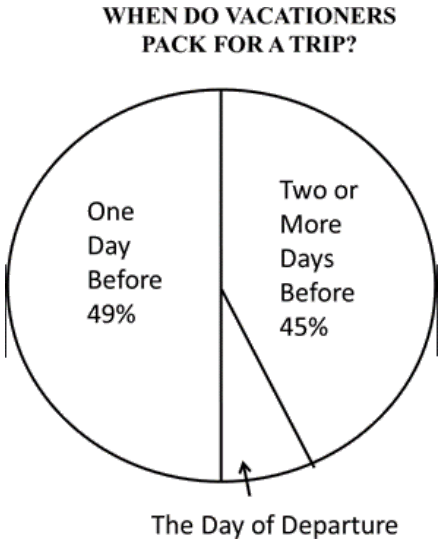
(E) 42

9. One day last week, Sam worked 4 hours and Teresa worked 3 hours. For their combined hours worked, Sam and Teresa paid a total of $ 54.60. If they are paid at the same hourly rate, what is the amount, in dollars, each is paid per hour? (Disregard the $ sign when gridding your answer. For examples, if Your answer is $ 1.37, grid 1.37)

10. If x is an integer that satisfies the inequalities below, what is one possible value of $3x$?

$3 < 2x < 11$

11. The circle graph below shows the results of a survey taken at an airport. In the survey. 1200 vacationers stated when they packed for their trip. How many stated that they packed on the day of departure?

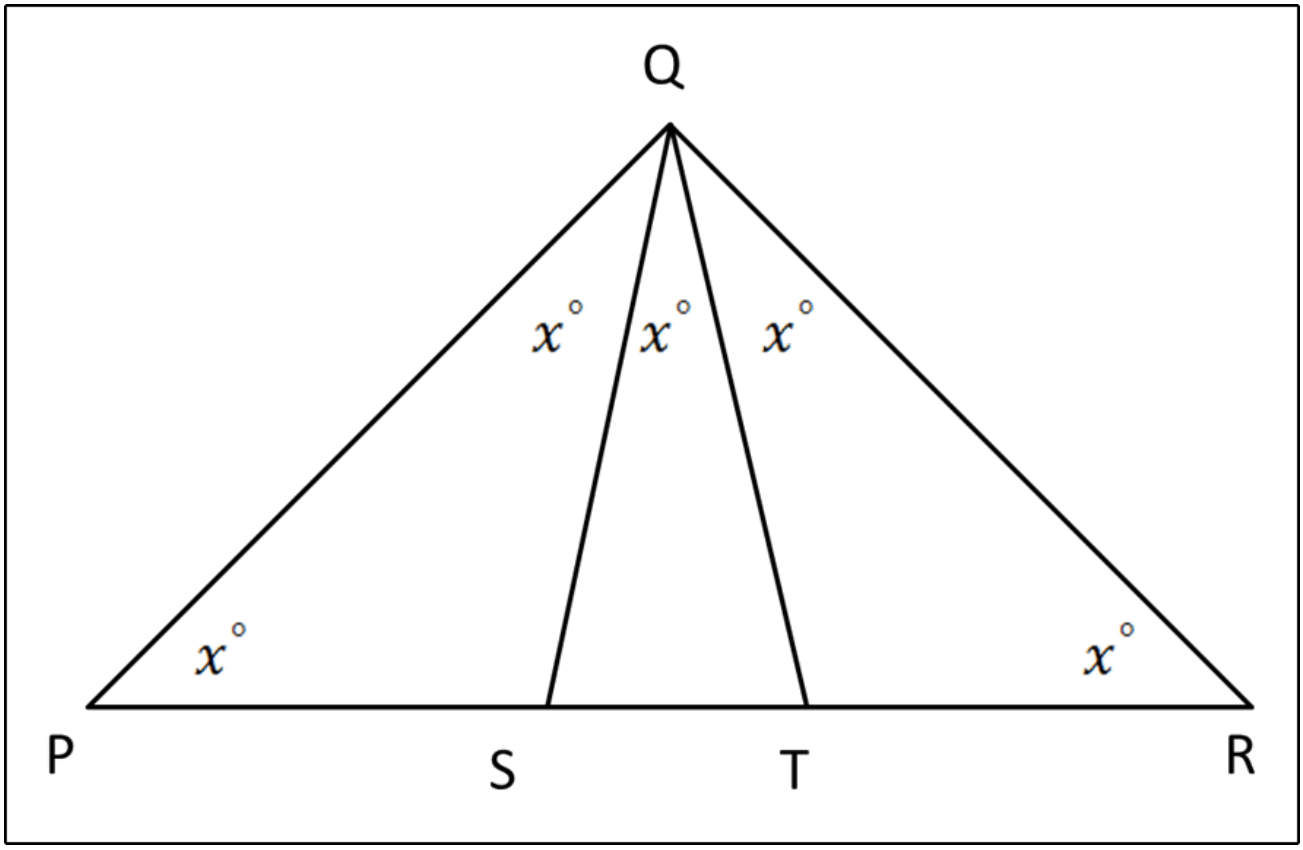


12. The functions f and g are defined below. What does $g(10)$ equal?

$f(x) = x^2$

$g(x) = f(x) + 2$

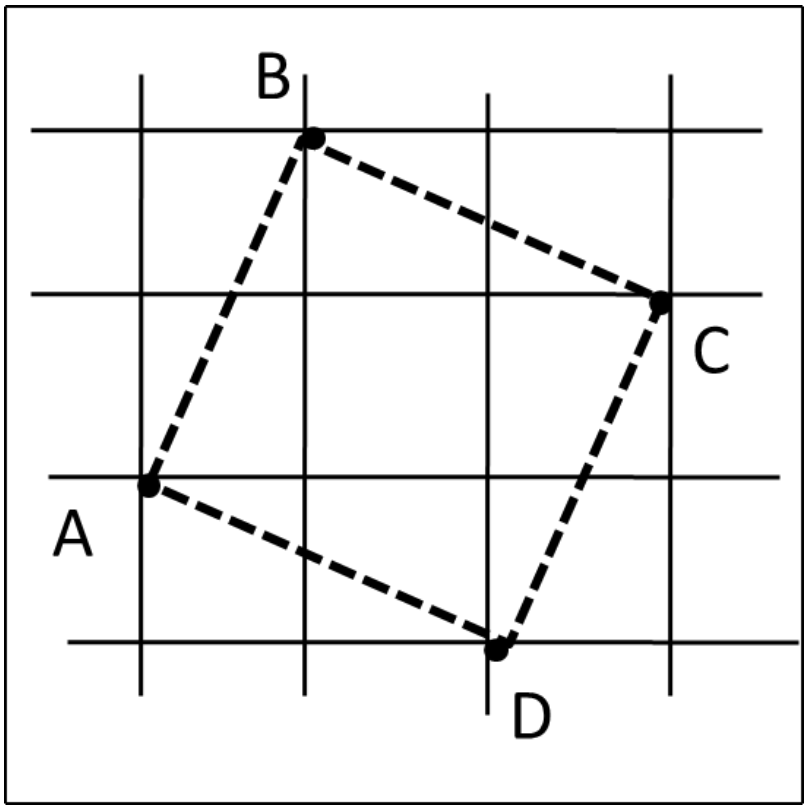
13. In triangle PQR below, what is the value of x ?



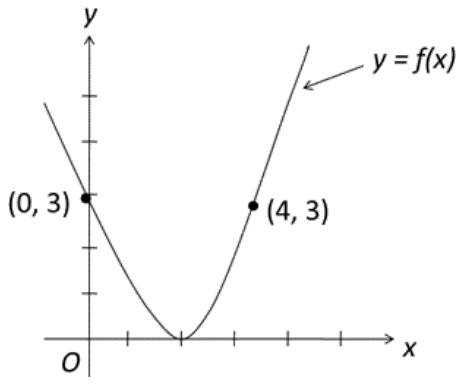
Note: Figure not drawn to scale.

14. A bakery sells 4 different types of bread. How many combinations of 3 different types of bread can a customer buy from this bakery?

15. In the below, each of the smallest squares on the grid has sides of length 1. What is the area of square ABCD?



16. The figure below shows the graph of the function f , where $f(x) = a(x-2)^2$ for some constant a . What is the value of a ?



17. A rectangle solid has length 20 centimeters, width 5 centimeters, and height 10 centimeters. How many of these rectangular solids when combined have a volume of 1 cubic meter? (1 meter = 100 centimeters)

18. What is the greatest four – digit integer that meets the following three restrictions?

1. All of the digits are different.

2. The greatest digit is the sum of the other three digits.

3. The product of the four digits is divisible by 10 and not equal to zero.