

Examrace

SAT Questions and Answers Practice Test Paper-2 Important Questions Section E

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Section - E

Time - 25 minutes

21 Questions

1. At full capacity, Thompson Paper Factory produces 200 sheets of paper per second. If the factory is operating at a quarter of its full capacity, how many sheets of paper will the factory produce in twelve seconds?

- (A) 600
- (B) 900
- (C) 1200
- (D) 2000
- (E) 2400

Ans. (A) 600

2. If $Z = \frac{2x}{5}$ and $Z = 3$, then $x =$

- (A) $\frac{5}{3}$
- (B) 2
- (C) 5
- (D) $\frac{19}{3}$
- (E) $\frac{15}{2}$

Ans. (E) $\frac{15}{2}$

3. Which of the following is the greatest common factor of 32 and 42?

- (A) 2
- (B) 3

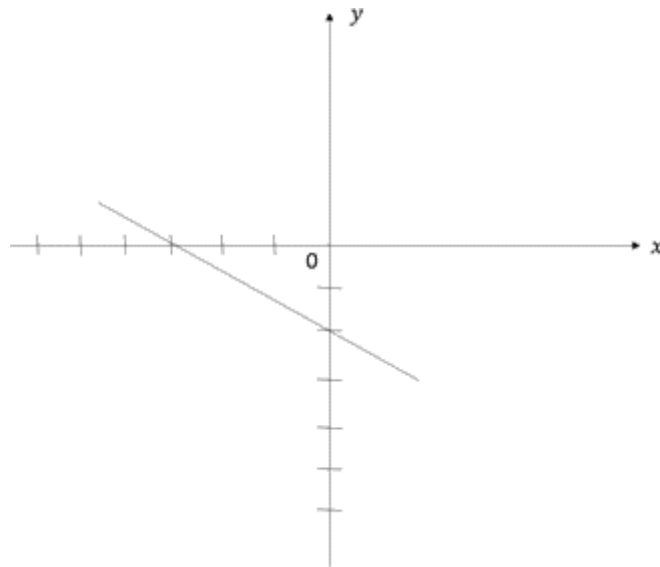
(C) 6

(D) 8

(E) 12

Ans. (A) 2

4. What is the slope of the below line?



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(A) $-\frac{3}{2}$

(B) $-\frac{2}{3}$

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

(D) 1

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

Ans. (B) $-\frac{2}{3}$

Questions 5 – 6 refer to the following table.

5. According to the table, how many students are there in 3rd and 4th grade at Hyde Park Elementary?

**3rd and 4th Grades at
Hyde Park Elementary**

	Boys	Girls	Total
3 rd	16	14	
4 th			32
Total			

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(A) 30

(B) 32

(C) 50

(D) 60

(E) 62

Ans. (E) 62

6. If there are 18 girls in 4th grade, how many boys are there in 3rd and 4th grade at Hyde Park Elementary?

(A) 18

(B) 22

(C) 26

(D) 30

(E) 32

Ans. (D) 30

7. Which of the following is the value of the exponent when the expression $\frac{\left(m^{\frac{3}{4}}\right)}{m^{\frac{5}{4}}}$ is simplified?

(A) $-\frac{11}{4}$

(B) $-\frac{29}{16}$

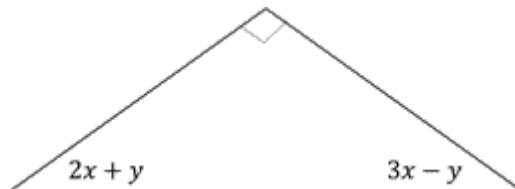
(C) $-\frac{3}{4}$

(D) $\frac{11}{4}$

(E) $\frac{29}{6}$

Ans. (A) $-\frac{11}{4}$

8. In the right triangle below, what is the value of x ?



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(A) 15

(B) 16

(C) 18

(D) 24

(E) 30

Ans. (C) 18

9. Taking the highway from Easton to Bethsaida is 7 miles longer than taking surface streets from Easton to Bethsaida. It is 31 miles total if you travel from Easton to Bethsaida via highway and return via surface streets. How many miles then, is the highway route?

(A) 12

(B) 13

(C) 15

(D) 17

(E) 19

Ans. (E) 19

10. If $f(x) = \frac{3x^2}{x^2 + 3x - 18}$, for what values of x is the function undefined?

(A) 0

(B) -3, 6

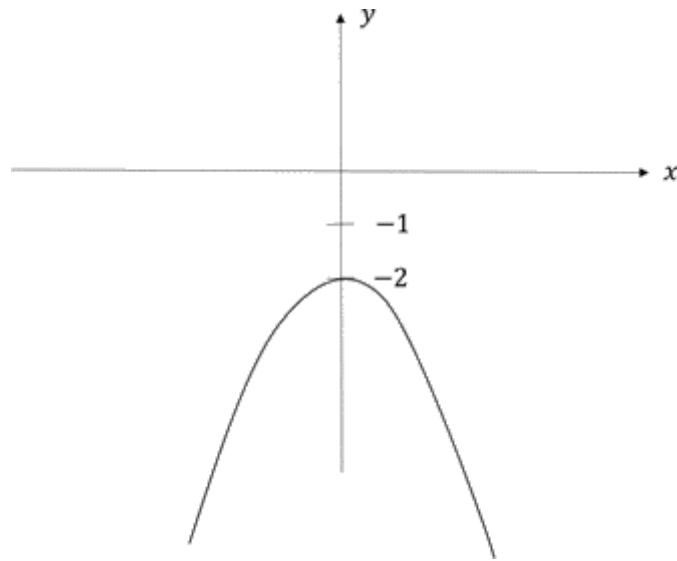
(C) -3, 3

(D) 2, 5

(E) 3, -6

Ans. (E) 3, -6

11. If $f(x)$ is graphed below, then $f(x) =$

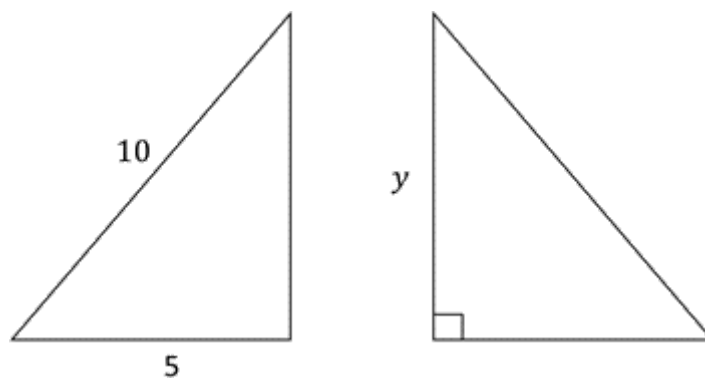


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- (A) $x^2 + 2$
- (B) $x^2 - 2$
- (C) $-x^2 + 2$
- (D) $-(x^2 + 2)$
- (E) $-(x + 2)^2$

Ans. (D) $-(x^2 + 2)$

12. If the below triangles are congruent, what is the value of y ?



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(A) 5

(B) $\sqrt{50}$

(C) 8

(D) $\sqrt{75}$

(E) 9

Ans. (D) $\sqrt{75}$

13. $(y + 2)^2 = (y - 4)^2$ is true when y equals

(A) 1 only

(B) 1 and -1

(C) 2 and -2

(D) 1 and 2

(E) 2 and 4

Ans. (A) 1 only

14. Z is the set of numbers 1 through 50 inclusive. How many members of Z are evenly divisible by 2 and 3?

(A) 6

(B) 8

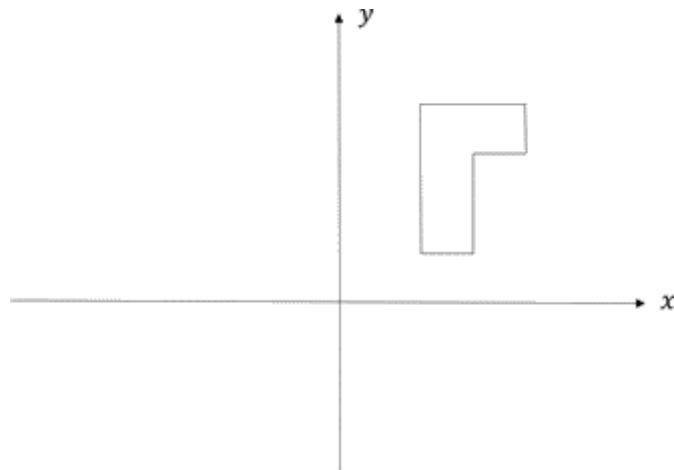
(C) 14

(D) 16

(E) 25

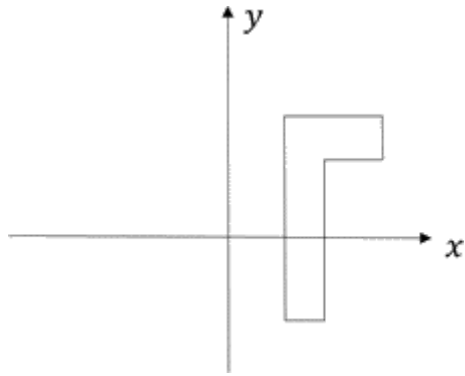
Ans. (B) 8

15. Which of the following figures is similar to the shape shown below?



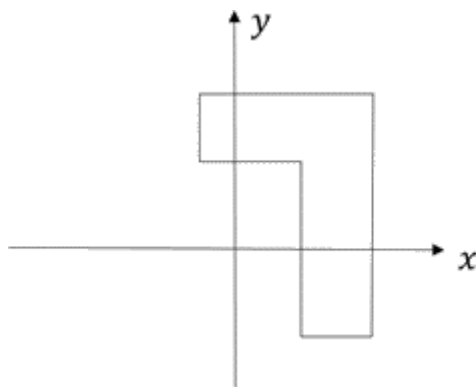
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(A)



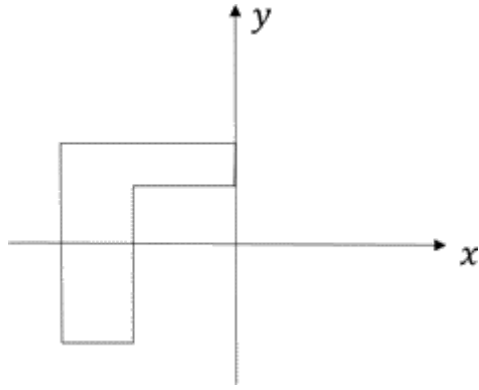
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(B)



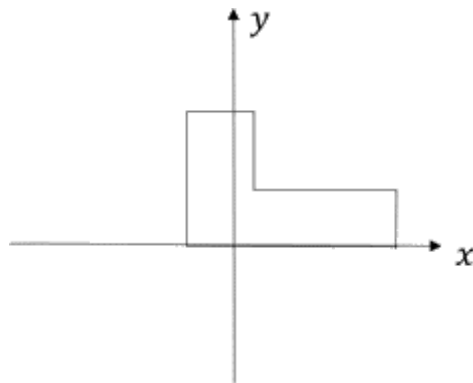
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(C)



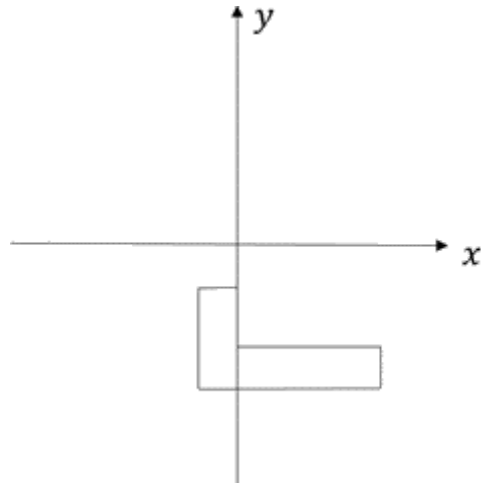
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(D)



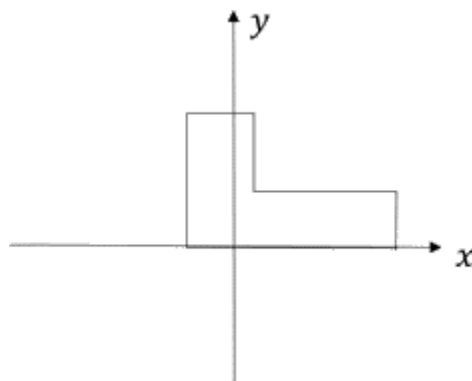
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(E)



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Ans. (D)



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16. What is the area of the below figure?

(A) 1

(B) $\sqrt{2}$

(C) 2

(D) $1\sqrt{2}$

(E) 4

Ans. (C) 2

17. The sum of eight positive even integers is 50. If no integer can appear more than 50. If no integer can appear more than twice in the set, what is the greatest possible value of one of the integers.

(A) 8

(B) 18

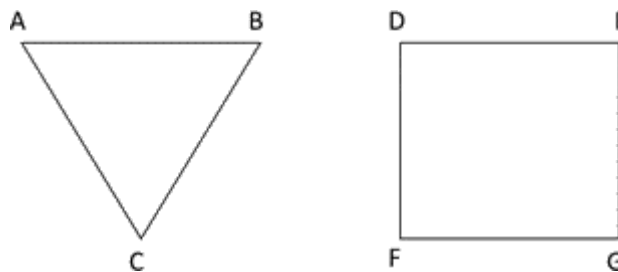
(C) 22

(D) 24

(E) 32

Ans. (B) 18

18. ABC is an equilateral triangle and DEFG is a square. If $\overline{AB} = \overline{DE}$, how many different ways can ABC be placed in DEFG such that two vertices of the triangle coincide with two corners of the square?



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(A) 4

(B) 6

(C) 8

(D) 10

(E) 12

Ans. (E) 12

19. G, S, and T are three points that lie on a plane. If the distance between G and S is 9, and the distance between S and T is 5, which of the following are possible distances between G and T?

I. 3

II. 5

III. 14

(A) I only

(B) II only

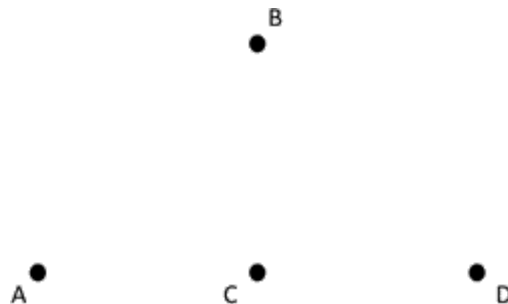
(C) I and II only

(D) II and III only

(E) I, II and III

Ans. (D) II and III only

20. If $\overline{AB} = \overline{BC} = \overline{AC} = 6$, and D is the halfway between A and C, then $\overline{BD} =$



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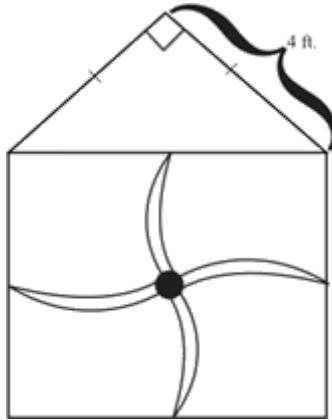
(A) $2\sqrt{3}$

(B) 3

(C) $3\sqrt{3}$ (D) $4\sqrt{2}$ (E) $4\sqrt{3}$

Ans. (C) $3\sqrt{3}$

21. The figure below is the diagram of an industrial fan blade. If the fan's maximum blade speed is 100 revolutions per 10 seconds, what is the greatest distance (in feet) that any point on the blade could travel in 30 seconds?



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(A) $100\sqrt{2}\pi$

(B) $200\sqrt{3}\pi$

(C) $600\sqrt{2}\pi$

(D) $600\sqrt{3}\pi$

(E) $1200\sqrt{2}\pi$

Ans. (E) $1200\sqrt{2}\pi$

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