

SAT Prep

DAy 3 Classwork Inequalities and Equations

Name _____

Date _____

1. If $3(n + 4) < 15$, which of the following must be true?
- a) $n < 0$ b) $n < 1$ c) $n < 3$
d) $n < 4$ e) $n < 8$
2. If $2(6 - x) > 4$, which of the following must be true?
- a) $x < 4$ b) $x > 4$ c) $x < -4$
d) $x > -4$ e) $-4 < x < 4$
3. If n is an integer and $0 < n < 40$, then how many integers are there of the form $\frac{4n}{9}$?
- a) 0 b) 1 c) 2 d) 3 e) 4
4. If $-1 < 3x + 8 < 11$, then the values of x that will satisfy the condition are
- a) $-3 < x < 1$ b) $2 < x < \frac{19}{3}$
c) $x < -3$ or $x > 1$ d) $-\frac{1}{3} < x < \frac{11}{3}$
e) $3 > x > -1$
5. If $(a + 8) - (3 - 4a) < 15$, then which of the following statements must be true?
- a) $a < 2$ b) $a < 4$ c) $a > 4$
d) $a < 5$ e) $a = 3$
6. If $n > 5$, which of the following has the least value?
- a) $\frac{5}{n+1}$ b) $\frac{5}{n-1}$ c) $\frac{5}{n}$
d) $\frac{n}{5}$ e) $\frac{n+1}{5}$
7. If $x < -1$, then which of the following expressions has the greatest value?
- a) $\frac{1}{x^2}$ b) $\frac{1}{x^3}$ c) x^2 d) x^4 e) x^5
8. If x , y , and z are all integers where $-3 < x < y < z < 4$, then all of the following are possible values of y except
- a) -2 b) -1 c) 0 d) 1 e) 2
9. If $0 < x < 1$, then which of the following must be true?
- a) $x^2 < x$ b) $x^2 > x$ c) $x^2 = x$
d) $x^2 < 0$ e) $x^2 > 1$
10. Solve for x given in the equation $x^4 + x^3 + x = 26$.
- a) 0 b) 1 c) 2 d) 3 e) 4
11. For what positive value of x does $\frac{9}{x} = \frac{x}{25}$?
- a) 5 b) 8 c) 12 d) 15 e) 16

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12. If $\frac{1}{3}a = 3$, then $\frac{2}{3}a =$

- a) $\frac{3}{2}$ b) 2 c) 4 d) $\frac{9}{2}$ e) 6

13. Solve for x : $2x - 4(4 - \frac{3}{2}x) = 8$

- a) 3 b) 0 c) -1 d) -3 e) -6

14. Solve for x : $6(x - 3) + 6 = 2(x + 13) - 2$

- a) 2 b) 2.5 c) 3 d) 4 e) 9

15. If the sum of $a - 2$, a , and $a + 2$ is 0, then $a =$

- a) -2 b) -1 c) 0 d) 1 e) 2

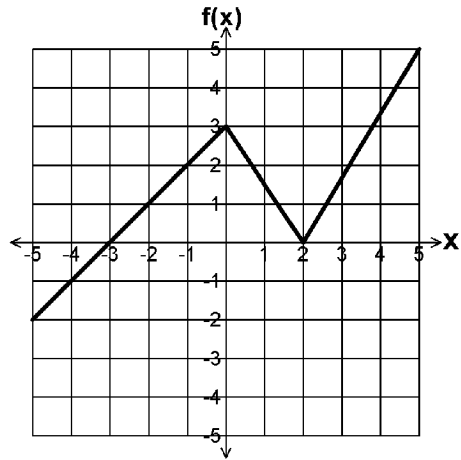
16. If $g(x) = 3x - 1$, what is the value of $g(-4) - g(4)$?

- a) -24 b) -22 c) 0 d) 22 e) 24

17. What is the domain of the given function?

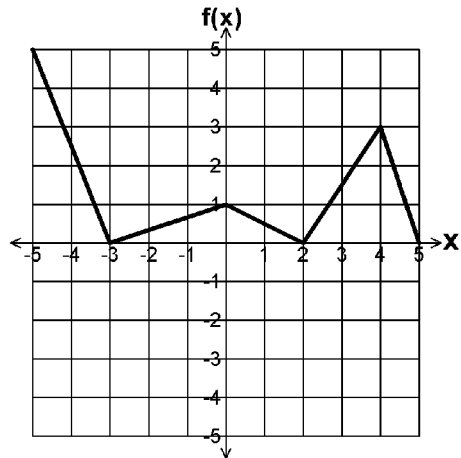
$\{(1, 2), (2, 4), (3, 6), (4, 8), (5, 10)\}$

- a) $\{2, 4, 6, 8, 10\}$
 b) $\{1, 2, 3, 4, 5\}$
 c) $\{6, 7, 8, 9, 10\}$
 d) $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$
 e) all real numbers



18. The figure above shows the graph of function f . What is the y -intercept of f ?

- a) -5 b) -3 c) 1 d) 2 e) 3

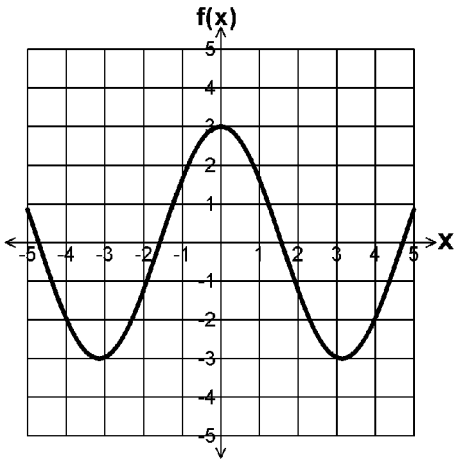


19. The figure above shows the graph of function f . What is an x -intercept of f ?

- a) 0 b) 1 c) 2 d) 3 e) 4

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20. The figure above shows the graph of function f .
What is the maximum value of f ?

a) -3 b) -1 c) 1 d) 2 e) 3

1.
Answer: b
CodePath: EAS.SAT.B.F.7
2.
Answer: a
CodePath: EAS.SAT.B.F.8
3.
Answer: e
CodePath: EAS.SAT.B.F.11
4.
Answer: a
CodePath: EAS.SAT.B.F.25
5.
Answer: a
CodePath: EAS.SAT.B.F.26
6.
Answer: a
CodePath: EAS.SAT.B.F.29
7.
Answer: d
CodePath: EAS.SAT.B.F.30
8.
Answer: a
CodePath: EAS.SAT.B.F.32
9.
Answer: a
CodePath: EAS.SAT.B.F.35
10.
Answer: c
CodePath: EAS.SAT.B.C.50
11.
Answer: d
CodePath: EAS.SAT.B.C.53
12.
Answer: e
CodePath: EAS.SAT.B.C.60
13.
Answer: a
CodePath: EAS.SAT.B.C.61
14.
Answer: e
CodePath: EAS.SAT.B.C.66

15.
Answer: c
CodePath: EAS.SAT.B.C.68
16.
Answer: a
CodePath: EAS.SAT.G.B.1
17.
Answer: b
CodePath: EAS.SAT.G.C.1
18.
Answer: e
CodePath: EAS.SAT.G.G.1
19.
Answer: c
CodePath: EAS.SAT.G.G.4
20.
Answer: e
CodePath: EAS.SAT.G.G.12