SAT Math Easy Practice Quiz

Numbers and Operations

1. Aubrey can run at a pace of 6 miles per hour. Running at the same rate, how many miles can she run in 90 minutes?

   (A)   4
   (B)   6
   (C)   8
   (D)   9
   (E)   12

2. Which of the following is a factor of $15 + 45$?

   (A)   18
   (B)   25
   (C)   30
   (D)   35
   (E)   45

3. Which of the following is NOT a positive multiple of $9 + 3$?

   (A)   3
   (B)   12
   (C)   24
   (D)   48
   (E)   60

$$x, 2x, 4x, \ldots$$

4. The first term in the sequence above is x, and each term thereafter is equal to twice the previous term. Which of the following is the sum of the first five terms of this sequence?

   (A) $10x$
   (B) $15x$
   (C) $30x$
   (D) $31x$
   (E) $32x$

5. A number is divided by four. The result is divided by three, for a final result of two. What was the original number?

   (A)   6
   (B)   12
   (C)   18
   (D)   24
   (E)   36

6. A farmer can pick 12 cabbages in 1 hour. Working at the same rate, how long in hours would it take two farmers to pick 48 cabbages?

   (A)   1
   (B)   2
   (C)   4
   (D)   6
   (E)   8

$$abcdeabcdeabc\ldots$$

7. In the sequence of letters shown above, the first letter is a, followed by b, c, d, and e, at which point the pattern repeats. Which of the following is the 31st letter in this sequence?

   (A) a
   (B) b
   (C) c
   (D) d
   (E) e

8. The month of July has 31 days. What is the greatest possible number of Saturdays that can occur in July?

9. Bill is 27 years older than Ted, who is 38 years younger than Amy. In how many years will Bill be the same age as Amy is now?

10. Aubrey can walk 3000 feet in 10 minutes. Walking at the same rate, how many feet can she walk in 10 seconds?

> All cabbages are red.

11. Which of the following statements shows that the statement above is FALSE?

    (A)   David is eating a red apple.
    (B)   Bill is eating a green apple.
    (C)   Alice is not eating a red cabbage.
    (D)   Ted is eating a red cabbage.
    (E)   Keisha is eating a green cabbage.

12. When a particular number is added to its own reciprocal, the resulting sum is -2. The number is which of the following?

    (A) -2

    (B) -1

    (C) $-\dfrac{1}{2}$

    (D) 1

    (E) 2

13. Two consecutive integers m and n are prime numbers. Which of the following is equal to mn?

    (A)   1
    (B)   2
    (C)   6
    (D)   9
    (E)   15

SAT Math Easy Practice Quiz

Algebra and Functions

1. If $x + 1 = 23$, what is the value of $3x + 3$?

    (A) 22
    (B) 46
    (C) 66
    (D) 69
    (E) 72

2. If $\sqrt{2x + 4} = \sqrt{36}$, what is the value of x?

    (A) 1
    (B) 6
    (C) 8
    (D) 12
    (E) 16

3. If $2a + 3b = 12$, and $3b - 4 = 2$, then what is the value of a?

    (A) 2
    (B) 3
    (C) 4
    (D) 6
    (E) 8

4. For all numbers x, y, and z, let $\boxed{x\,|\,y\,|\,z}$ be defined by $\boxed{x\,|\,y\,|\,z} = x - y + z$. What is the value of $\boxed{1\,|\,2\,|\,3}$?

    (A) 1
    (B) 2
    (C) 3
    (D) 4
    (E) 5

x	1	2	3	4	5	6
$g(x)$	3	11	19	27	a	43

5. The table above defines several values of the linear function g. What is the value of a?

    (A) 31
    (B) 33
    (C) 35
    (D) 37
    (E) 41

6. A pool that is being drained contains $300 - 6t$ gallons of water after t minutes of draining. How many gallons of water does the pool contain after 15 minutes of draining?

7. If $x + 1 = 7$, what is the value of $x^2 + 2x + 1$?

    (A) 36
    (B) 37
    (C) 48
    (D) 49
    (E) 81

8. Which of the following expressions is equivalent to 12 less than the product of x and y?

    (A) $12 - xy$
    (B) $xy - 12$
    (C) $12 - (x + y)$
    (D) $(x + y) - 12$
    (E) $12xy$

9. If $3x = 13$ and $2y = 7$, what is the value of $3(2x) - 2(3y)$?

10. If $3^{m-3} + 3^{m-3} = 18$, what is the value of m ?

(A) 3
(B) 4
(C) 5
(D) 6
(E) 9

11. If $2x = 5$, $3y = 4$, and $4z = 3$, what is the value of $24xyz$?

(A) 12
(B) 18
(C) 36
(D) 48
(E) 60

12. If $x^2 = 4$, then which of the following could be the value of x^3 ?
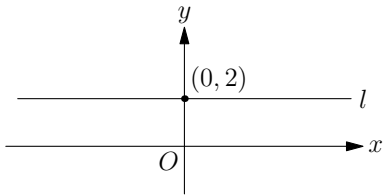
(A) -8
(B) -4
(C) 2
(D) 6
(E) 12

$$3m < 13$$
$$2m > 7$$

13. If m is an integer that satisfies the equations above, what is the value of m ?
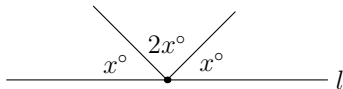
(A) 0
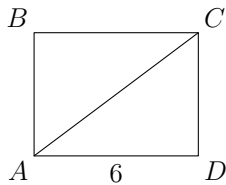(B) 2
(C) 3
(D) 4
(E) 5

Geometry

1. In the figure above, line l is perpendicular to the y-axis and a distance of two units from the x-axis. Which of the following points is on line l?

(A) $(-1, 2)$
(B) $(-2, 1)$
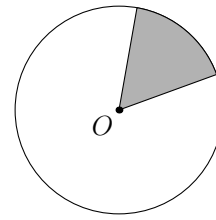(C) $(2, 3)$
(D) $(3, 1)$
(E) $(4, 3)$

**2.** In the figure above, two line segments meet at a point on line l. What is the value of x?

3. In the figure above, $ABCD$ is a rectangle. If $AD = 6$, which of the following could be the length of $\overline{AC}$?

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

4. A portion of the circle with center O is shaded as in the figure above. If the area of the shaded region is 12π, and $\dfrac{1}{6}$ of the circle is shaded, what is the area of the circle?

(A) 2π
(B) 10π
(C) 24π
(D) 48π
(E) 72π
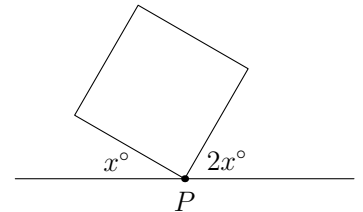
5. A square is tangent to a line at point P in the figure above. What is the value of x?

6. A particular cube has edges of length 2. If half the faces are painted green and half the faces are painted red, what is the total area of the faces painted green?

7. The area of a particular rectangle is 72. If the length of the rectangle is twice the width, what is the width of the rectangle?
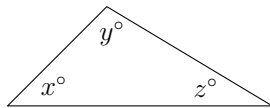
(A)   6
(B)   8
(C)   10
(D)   12
(E)   16
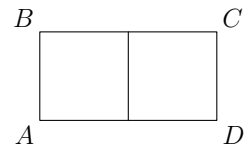
8. Rectangle $ABCD$ is subdivided into two identical square regions, as in the figure above. If the area of each square is 9, what is the perimeter of $ABCD$?

Data, Statistics, and Probability

1. In the triangle above, what is the average (arithmetic mean) of x, y, and z?

(A) 30
(B) 45
(C) 60
(D) 75
(E) 90

2, 4, 6, 8, 10, 12, 14, 16, 18

2. If a number is selected at random from the list above, what is the probability that the number is divisible by 3?

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

(B) $\dfrac{4}{9}$

(C) $\dfrac{5}{9}$

(D) $\dfrac{2}{3}$

(E) 1

3. A basket contains turnips that are either red or white. If the total number of turnips in the basket is 24, and the probability of choosing a red turnip at random is $\dfrac{5}{6}$, how many red turnips are in the basket?

4. Let set $M = \{x,\ 2x,\ 4x\}$ for any number x. If the average (arithmetic mean) of the numbers in set M is 14, what is the value of x?

(A) 2
(B) 6
(C) 7
(D) 10
(E) 12

Answers

Numbers and Operations

1. D   (Estimated Difficulty Level: 1)

2. C   (Estimated Difficulty Level: 1)

3. A   (Estimated Difficulty Level: 1)

4. D   (Estimated Difficulty Level: 1)

5. D   (Estimated Difficulty Level: 1)

6. B   (Estimated Difficulty Level: 1)

7. A   (Estimated Difficulty Level: 1)

8. 5   (Estimated Difficulty Level: 2)

Hint: you need to know that there are seven days in a week, which means that after 28 days, there have been 4 Saturdays.

9. 11   (Estimated Difficulty Level: 2)

Hint: make up a number for Bill's age.

10. 50   (Estimated Difficulty Level: 2)

Hint: you need to know that one minute equals 60 seconds. How many seconds are in 10 minutes?

11. E   (Estimated Difficulty Level: 2)

Hint: you need a statement that mentions a cabbage which isn't red.

12. B   (Estimated Difficulty Level: 2)

Hint: work with the answers to make this particular problem really easy.

13. C   (Estimated Difficulty Level: 2)

Hint: for the SAT you should know the first few prime numbers (2, 3, 5, 7, 11, ...) as well the meaning of "consecutive integers".

SAT Math Easy Practice Quiz

Algebra and Functions

1. D   (Estimated Difficulty Level: 1)

2. E   (Estimated Difficulty Level: 1)

3. B   (Estimated Difficulty Level: 1)

4. B   (Estimated Difficulty Level: 1)

5. C   (Estimated Difficulty Level: 1)

6. 210   (Estimated Difficulty Level: 1)

7. D   (Estimated Difficulty Level: 2)

Hint: you can solve for x and then plug it in. Or, you could notice that $(x+1)^2 = x^2 + 2x + 1$.

8. B   (Estimated Difficulty Level: 2)

Hint: "6 less than m" is the same as $m - 6$ and the word "product" means "multiply".

9. 5   (Estimated Difficulty Level: 2)

Hint: sometimes on the SAT, it is better *not* to solve for x, especially if the question doesn't ask you for x. Here, $3(2x) = 2(3x) = 26$ and $2(3y) = 3(2y) = 21$, so that $3(2x) - 2(3y) = 5$. Who cares what x and y are?

10. C   (Estimated Difficulty Level: 2)

Okay, perhaps this problem is a little harder than a level 2 question. But, if you work with the answers by plugging them in for m until the equation works, then this problem is really pretty easy!

11. E   (Estimated Difficulty Level: 2)

Hint: $2x \cdot 3y \cdot 4z = 24xyz$.

12. A   (Estimated Difficulty Level: 2)

Hint: if $x^2 = 4$, then x could be either $+2$ or -2. Since people tend to forget about the negative solution to equations like this, the negative answer is often the correct one on the SAT.

13. D   (Estimated Difficulty Level: 2)

Hint: work with the answers to make this particular problem really easy.

SAT Math Easy Practice Quiz

Geometry

1. A   (Estimated Difficulty Level: 1)

2. 45   (Estimated Difficulty Level: 1)

3. E   (Estimated Difficulty Level: 2)

4. E   (Estimated Difficulty Level: 2)

Hint: the area of the shaded region is 1/6 times the area of the circle.

5. 30   (Estimated Difficulty Level: 2)

Hint: each angle of a square measures 90°.

6. 12   (Estimated Difficulty Level: 2)

Hint: a cube has 6 faces, and each face is a square.

7. A   (Estimated Difficulty Level: 2)

Hint: work with the answers to make this particular problem really easy.

8. 18   (Estimated Difficulty Level: 2)

Hint: if the area of a square is A, then the length of one side of the square is $\sqrt{A}$. You are probably used to getting the area by squaring one of the sides; the SAT likes to make you do things in reverse.

Data, Statistics, and Probability

1. C   (Estimated Difficulty Level: 1)

2. A   (Estimated Difficulty Level: 1)

3. 20   (Estimated Difficulty Level: 1)

4. B   (Estimated Difficulty Level: 2)

Hint: work with the answers to make this particular problem really easy.