SAT Math

Linear Equations in One Variable 1

Question #	ID

1.1   097e10f5

What value of p satisfies the equation $5p + 180 = 250$?

A. 14

B. 65

C. 86

D. 250

1.2   997bec28

The perimeter of an isosceles triangle is 83 inches. Each of the two congruent sides of the triangle has a length of 24 inches. What is the length, in inches, of the third side?

1.3   6ac23de7

$$\frac{4x}{5} = 20$$

In the equation above, what is the value of x ?

A. 25

B. 24

C. 16

D. 15

1.4   7392dfc1

Which of the following is equivalent to $4x + 6 = 12$?

A. $2x + 4 = 6$

B. $x + 3 = 3$

C. $3x + 2 = 4$

D. $2x + 3 = 6$

Question #	ID
1.5	93954cfa

One pound of grapes costs $2. At this rate, how many dollars will c pounds of grapes cost?

A. $2c$

B. $2 + c$

C. $\dfrac{2}{c}$

D. $\dfrac{c}{2}$

| **1.6** | 3d04de9c |

A principal used a total of 25 flags that were either blue or yellow for field day. The principal used 20 blue flags. How many yellow flags were used?

A. 5

B. 20

C. 25

D. 30

| **1.7** | 60f71697 |

$$8x = 88$$

What value of x is the solution to the given equation?

A. 11

B. 80

C. 96

D. 704

| **1.8** | 550b352c |

$$10 = 2x + 4$$

How many solutions exist to the equation shown above?

A. None

B. Exactly 1

C. Exactly 3

D. Infinitely many

Question #	ID
1.9	ed18c4f7

Cathy has n CDs. Gerry has 3 more than twice the number of CDs that Cathy has. In terms of n, how many CDs does Gerry have?

A. $3n - 2$

B. $3n + 2$

C. $2n - 3$

D. $2n + 3$

1.10	12255364

A gym charges its members a onetime $\$36$ enrollment fee and a membership fee of $\$19$ per month. If there are no charges other than the enrollment fee and the membership fee, after how many months will a member have been charged a total of $\$188$ at the gym?

A. 4

B. 5

C. 8

D. 10

1.11	d9d83c02

For what value of w does $w - 10 = 2(w + 5)$?

A. 5

B. 0

C. -15

D. -20

1.12	7a987ae4

If $\dfrac{2n}{5} = 10$, what is the value of $2n - 1$?

A. 24

B. 49

C. 50

D. 99

Question #	ID
1.13	9ff10b3b

If $\dfrac{1}{2}x - \dfrac{1}{6}x = 1$, what is the value of x ?

A. -4

B. $\dfrac{1}{3}$

C. 3

D. 6

1.14	4e77195b

If $2 + x = 60$, what is the value of $16 + 8x$?

1.15	4f7981a0

If $3x + 2 = 8$, what is the value of $9x + 6$?

1.16	46f68129

A librarian has 43 books to distribute to a group of children. If he gives each child 2 books, he will have 7 books left over. How many children are in the group?

A. 15

B. 18

C. 25

D. 29

1.17	e53870b6

$$6x + k = 6x + 5$$

In the given equation, k is a constant. If the equation has infinitely many solutions, what is the value of k ?

Question #	ID
1.18	70774aa4

If $5x = 20$, what is the value of $15x$?

A. 7

B. 12

C. 23

D. 60

| **1.19** | a9c04a21 |

What is the solution to the equation $2x + 3 = 7$?

A. 1

B. 1.5

C. 2

D. 4

| **1.20** | 590f2187 |

If $3x - 27 = 24$, what is the value of $x - 9$?

A. 1

B. 8

C. 24

D. 35

| **1.21** | 59afe8db |

$3x + 5(x + 4) = 76$ What value of x is the solution to the given equation?

A. 7

B. 8

C. 56

D. 72

| **1.22** | c7d7980e |

$13x = 112 - x$ What value of x is the solution to the given equation?

Question #	ID
1.23	40ba6288

If $3x = 30$, what is the value of $3x - 12$?

A. -2

B. 18

C. 22

D. 42

1.24 87071893

$$x + 40 = 95$$
What value of x is the solution to the given equation?

1.25 3c4ce699

If $6 + x = 9$, what is the value of $18 + 3x$?

1.26 4de87c9a

3 more than 8 times a number x is equal to 83. Which equation represents this situation?

A. $(3)(8)x = 83$

B. $8x = 83 + 3$

C. $3x + 8 = 83$

D. $8x + 3 = 83$

1.27 8339793c

Nasir bought 9 storage bins that were each the same price. He used a coupon for $\$63$ off the entire purchase. The cost for the entire purchase after using the coupon was $\$27$. What was the original price, in dollars, for 1 storage bin?

1.28 2f0a43b2

If $\frac{x}{8} = 5$, what is the value of $\frac{8}{x}$?

Question #	ID
1.29	4f8bd093

What value of x is the solution to the equation $16x + 24 = 24x$?

A. -4

B. $\frac{3}{10}$

C. $\frac{1}{3}$

D. 3

| **1.30** | 9b886541 |

If $3x - 8 = 7$, what is the value of $3x + 8$?

A. -1

B. 5

C. 13

D. 23