

Question ID 097e10f5

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Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear equations in one variable	

ID: 097e10f5

1.1

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

~~A. 14~~

B. 65

C. 86

D. 250

$X = 14 //$

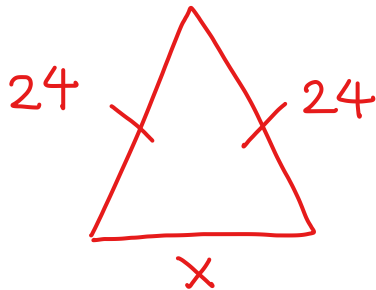
Question ID 997bec28

Assessment	Test	Domain	Skill	Difficulty
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ID: 997bec28

1.2

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?



$$\begin{aligned} 2(24) + x &= 83 \\ x &= 35 // \end{aligned}$$

Question ID 6ac23de7

Assessment	Test	Domain	Skill	Difficulty
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ID: 6ac23de7

1.3

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

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

- ~~A. 25~~
- B. 24
- C. 16
- D. 15

x = 25 //

Question ID 7392dfc1

Assessment	Test	Domain	Skill	Difficulty
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ID: 7392dfc1

1.4

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

$x = 1.5$

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A. $2x + 4 = 6$ ✗

B. $x + 3 = 3$ ✗

C. $3x + 2 = 4$ ✗

✗ $2x + 3 = 6$

Question ID 93954cfa

Assessment	Test	Domain	Skill	Difficulty
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ID: 93954cfa

1.5

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

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~~A. $2c$~~

B. $2 + c$

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

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

$$\begin{array}{l}
 1 \text{ p} \rightarrow \$ 2 \\
 c \text{ p} \rightarrow 2c //
 \end{array}$$

Question ID 3d04de9c

Assessment	Test	Domain	Skill	Difficulty
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ID: 3d04de9c

1.6

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

$$25 = B + Y$$

$$B = 20 / Y = 5 //$$

Question ID 60f71697

Assessment	Test	Domain	Skill	Difficulty
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ID: 60f71697

1.7

$$8x = 88$$

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

~~A. 11~~

B. 80

C. 96

D. 704

~~$x = 11$~~

Question ID 550b352c

Assessment	Test	Domain	Skill	Difficulty
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ID: 550b352c

1.8

$$10 = 2x + 4$$

How many solutions exist to the equation shown above?

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- A. None
- ☒ B. Exactly 1
- C. Exactly 3
- D. Infinitely many

Question ID ed18c4f7

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear equations in one variable	■ □ □

ID: ed18c4f7

1.9

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. $2n + 3$~~

$G = 2n + 3 //$

Question ID 12255364

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear equations in one variable	■ □ □

ID: 12255364

1.10

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

$$y = 36 + 19x$$
$$188 = 36 + 19x$$
$$x = 8 //$$

Question ID d9d83c02

Assessment	Test	Domain	Skill	Difficulty
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ID: d9d83c02

1.11

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

- A. 5
- B. 0
- C. -15
- ~~D. -20~~

$$w = -20 //$$

Question ID 7a987ae4

Assessment	Test	Domain	Skill	Difficulty
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ID: 7a987ae4

1.12

If $\frac{2n}{5} = 10$, what is the

value of $2n - 1$?

A. 24

~~B. 49~~

C. 50

D. 99

$$n = 25$$

$$\begin{array}{l} 2n - 1 = 49 \\ (25) \end{array} //$$

Question ID 9ff10b3b

Assessment	Test	Domain	Skill	Difficulty
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ID: 9ff10b3b

1.13

If $\frac{1}{2}x - \frac{1}{6}x = 1$, what is

the value of x ?

A. -4

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

~~C. 3~~

D. 6

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 $x = 3 //$

Question ID 4e77195b

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear equations in one variable	

ID: 4e77195b

1.14

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

$$x = 58$$

$$16 + 8x = 480$$

(58) //

Question ID 4f7981a0

Assessment	Test	Domain	Skill	Difficulty
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ID: 4f7981a0

1.15

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

$$3x + 2 \xrightarrow{\times 3} 9x + 6 = 24 //$$

Question ID 46f68129

Assessment	Test	Domain	Skill	Difficulty
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ID: 46f68129

1.16

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

$$43 - 2x = 7$$

$$x = 18 //$$

Question ID e53870b6

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear equations in one variable	☒ ☐ ☐

ID: e53870b6

1.17

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

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

$$k = 5 //$$

Question ID 70774aa4

Assessment	Test	Domain	Skill	Difficulty
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ID: 70774aa4

1.18

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

- A. 7
- B. 12
- C. 23
- ~~D. 60~~

$$5x \xrightarrow{\times 3} 15x = 60 //$$

Question ID a9c04a21

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear equations in one variable	☒ ☐ ☐

ID: a9c04a21

1.19

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

- A. 1
- B. 1.5
- ~~C. 2~~
- D. 4

$$x = 2 //$$

Question ID 590f2187

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear equations in one variable	

ID: 590f2187

1.20

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

- A. 1
- ~~B. 8~~
- C. 24
- D. 35

$$3x - 27 \xrightarrow{\div 3} x - 9 = 8 //$$

Question ID 59afe8db

Assessment	Test	Domain	Skill	Difficulty
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ID: 59afe8db

1.21

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

- X

7

8X + 20 = 76

X = 7 //
- B. 8

C. 56

D. 72

Question ID c7d7980e

Assessment	Test	Domain	Skill	Difficulty
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ID: c7d7980e

1.22

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

$$14x = 112$$
$$x = 8 //$$

Question ID 2e98b1df

Assessment	Test	Domain	Skill	Difficulty
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ID: 2e98b1df

1.23

On the first day of a semester, a film club has 90 members. Each day after the first day of the semester, 10 new members join the film club. If no members leave the film club, how many total members will the film club have 4 days after the first day of the semester?

- A. 400
- ~~B. 130~~
- C. 94
- D. 90

$y = 90 + 10x$
 $x = 4 / y = 130 //$

Question ID 40ba6288

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Algebra	Linear equations in one variable	

ID: 40ba6288

1.24

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

- A. -2
- ~~B. 18~~
- C. 22
- D. 42

$x = 10 \rightarrow 3x - 12 = 18 //$