

Question ID e170e55b

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

ID: e170e55b

If $46 = 16 + 2(x - 8)$, what is the value of $2(x - 8)$?

- A. 16
- B. 23
- C. 30
- D. 38

Question ID 635e58a2

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

ID: 635e58a2

If $9(4 - 3x) + 2 = 8(4 - 3x) + 18$, what is the value of $4 - 3x$?

- A. -16
- B. -4
- C. 4
- D. 16

Question ID eb08d61f

Assessment	Test	Domain	Skill	Difficulty
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ID: eb08d61f

A company that creates and sells tape dispensers calculates its monthly profit, in dollars, by subtracting its fixed monthly costs, in dollars, from its monthly sales revenue, in dollars. The equation $15,000 = 2.00x - 4,500$ represents this situation for a month where x tape dispensers are created and sold. Which statement is the best interpretation of $2.00x$ in this context?

- A. The monthly sales revenue, in dollars, from selling x tape dispensers
- B. The monthly sales revenue, in dollars, from each tape dispenser sold
- C. The monthly cost, in dollars, of creating each tape dispenser
- D. The monthly cost, in dollars, of creating x tape dispensers

Question ID 37e53339

Assessment	Test	Domain	Skill	Difficulty
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ID: 37e53339

A museum rents tablets to visitors. The museum earns revenue of **\$14** for each tablet rented for the day. On Wednesday, the museum earned **\$406** in profit from renting tablets after paying daily expenses of **\$112**. How many tablets did the museum rent on Wednesday? (**profit = total revenue – total expenses**)

Question ID 953ee38d

Assessment	Test	Domain	Skill	Difficulty
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ID: 953ee38d

A bowl contains **20** ounces of water. When the bowl is uncovered, the amount of water in the bowl decreases by **1** ounce every **4** days. If **9** ounces of water remain in this bowl, for how many days has it been uncovered?

- A. **3**
- B. **7**
- C. **36**
- D. **44**

Question ID a25615ce

Assessment	Test	Domain	Skill	Difficulty
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ID: a25615ce

A line segment that has a length of **115 centimeters (cm)** is divided into three parts. One part is **47 cm** long. The other two parts have lengths that are equal to each other. What is the length, in **cm**, of one of the other two parts of equal length?

Question ID b728de55

Assessment	Test	Domain	Skill	Difficulty
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ID: b728de55

If $\frac{6}{7}p + 18 = 54$, what is the value of $7p$?

Question ID 0f1cfed0

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

ID: 0f1cfed0

A candle is made of **17** ounces of wax. When the candle is burning, the amount of wax in the candle decreases by **1** ounce every **4** hours. If **6** ounces of wax remain in this candle, for how many hours has it been burning?

- A. **3**
- B. **6**
- C. **24**
- D. **44**

Question ID 29dee068

Assessment	Test	Domain	Skill	Difficulty
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ID: 29dee068

$$\frac{1}{3}(x + 6) - \frac{1}{2}(x + 6) = -8$$

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

Question ID 3586b08b

Assessment	Test	Domain	Skill	Difficulty
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ID: 3586b08b

If $5(x + 4) = 4(x + 4) + 29$, what is the value of $x + 4$?

- A. -4
- B. 25
- C. 29
- D. 33

Question ID 5ba95aa9

Assessment	Test	Domain	Skill	Difficulty
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ID: 5ba95aa9

The cost to rent a commercial fishing boat from a certain company is **\$950** for the first **2** hours and an additional **\$50** per hour for each hour after the first **2** hours. If the total cost to rent the commercial fishing boat from the company for t hours, where $t > 2$, is **\$1,100**, which equation represents this situation?

- A. $950(t - 2) + 50t = 1,100$
- B. $950(2t) + 50t = 1,100$
- C. $950 + 50(t - 2) = 1,100$
- D. $950 + 50(2t) = 1,100$

Question ID 9093aa56

Assessment	Test	Domain	Skill	Difficulty
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ID: 9093aa56

$$\frac{1}{4}(x + 5) - \frac{1}{3}(x + 5) = -7$$

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

- A. ~~−12~~
- B. ~~−5~~
- C. ~~79~~
- D. ~~204~~

Question ID 25ed5921

Assessment	Test	Domain	Skill	Difficulty
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ID: 25ed5921

$$4x + 12 = \frac{a(x+3)}{2}$$

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

- A. 0
- B. 3
- C. 8
- D. 12

Question ID f2d396f3

Assessment	Test	Domain	Skill	Difficulty
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ID: f2d396f3

$66x = 66x$

How many solutions does the given equation have?

- A. Exactly one
- B. Exactly two
- C. Infinitely many
- D. Zero

Question ID ce6f6062

Assessment	Test	Domain	Skill	Difficulty
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ID: ce6f6062

$$2x + 16 = a(x + 8)$$

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

Question ID 6c845af8

Assessment	Test	Domain	Skill	Difficulty
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ID: 6c845af8

If $2(3t - 10) + t = 40 + 4t$, what is the value of $3t$?