Question ID e170e55b

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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

$46 - 16 = 2(x - 8)$

$30 = 2(x - 8)$ //

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

$9y + 2 = 8y + 18$

$y = 16$ //

Question ID eb08d61f

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

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
SAT	Math	Algebra	Linear equations in one variable	Medium

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)

$406 = 14x - 112$

$x = 37$ //

Question ID 953ee38d

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

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

$20 - X = 9$

$X = 11$ น้ำหายไป 11 ounces

น้ำหายไป 1 O → เวลา 4 วัน

→ 11 → → 44 //

Question ID a25615ce

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

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?

$115 = 47 + 2X$

$X = 34$ //

Question ID b728de55

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

ID: b728de55

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

$p = 42$

$7p = 294$ //

Question ID 0f1cfed0

ข้อนี้อยู่ Topic 3

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

$17 - X = 6$

$X = 11$ ใช้ไปแล้ว 11 ounce

เหลือ 1 ounce → เวลา 4 hours

11 → 44 //

Question ID 29dee068

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

ID: 29dee068

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

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

$\frac{1}{3}y-\frac{1}{2}y=-8$

$-\frac{1}{6}y=-8$

$y=48$

$x+6=48$

$x=42$ //

Desmos → $x=42$ //

Question ID 3586b08b

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

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

$5y = 4y + 29$

$y = 29$ //

Question ID 5ba95aa9

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

ID: 5ba95aa9

ลัด ลองแทน $t=2$ $y=950$

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. $950+50(2t)=1{,}100$

X	Y
0	950
1	950
2	950
3	$950+50(3-2)$
t	$950+50(t-2)$

Question ID 9093aa56

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

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

$\frac{1}{4}y-\frac{1}{3}y=-7$

$-\frac{1}{12}y=-7$

$y=84$

$x+5=84$

$x=79$ //

Desmos → $x=79$ //

Question ID 25ed5921

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

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

Desmos → $y = 4x + 12$ ①

$y = \frac{a(x+3)}{2}$ ②

แทนค่า a ในข้อ C $a = 8$ //

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

$a = 8$ //

Question ID f2d396f3

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

ID: f2d396f3

$$66x = 66x$$

How many solutions does the given equation have?

A. Exactly one

B. Exactly two

C. Infinitely many

D. Zero

Desmos มองตอบได้

Question ID ce6f6062

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

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?

$2x + 16 = ax + 8a$

$a = 2$ //

Question ID 6c845af8

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

ID: 6c845af8

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

$7t - 20 = 40 + 4t$

$3t = 60$ //

Desmos → $t = 20$

$3t = 60$ //