

Station 1

- Evaluate the expression and write the equation that models the truth statement.
- Construct the story of x .

Expression: $\frac{x-7}{5} - 9.6$

Truth Statement: $x = 17$

$x = 17$

$\frac{x-7}{5} - 9.6$

$\frac{17-7}{5} - 9.6$

$\frac{10}{5} - 9.6$

$2 - 9.6$

-7.6

$\frac{x-7}{5} - 9.6 = -7.6$

Story of x

- subtract 7 from 17
- Divide 5 from the difference
- subtract 9.6 from the Quotient
- the solution is -7.6
When $x = 17$

Station 2

a) Identify and correct the error in evaluating the expression and writing the equation that models the truth statement.

b) Construct the story of x .

Expression: $\frac{-10 - x}{4} + 8$

Truth Statement: $x = 2$

$$\begin{aligned} &\frac{-10 - 2}{4} + 8 \\ &\frac{-8}{4} + 8 \\ &-2 + 8 \\ &6 \end{aligned}$$

The equation is $\frac{-10 - x}{4} + 8 = 6$
when $x = 2$.

$x = 2$

$$\frac{-10 - x}{4} + 8$$

$$\frac{-10 - 2}{4} + 8$$

$$\frac{-12}{4} + 8$$

$$\begin{aligned} &-3 + 8 \\ &5 \end{aligned}$$

$$\frac{-10 - x}{4} + 8 = 5$$

Story of x

- ① Subtract 2 from -10
- ② Divide 4 from the difference
- ③ Add 8 to the Quotient
- ④ the solution is 5
when $x = 2$

Station 3

- Evaluate the expression and write the equation that models the truth statement.
- Construct the story of x .

Expression: $-3 + \frac{5}{2}r$

Truth Statement: $r = 5$

$r = 5$

Story of r

$-3 + \frac{5}{2}r$

$-3 + \frac{5}{2}(5)$

$-3 + \frac{25}{2}$

$-3 + 12.5$
 9.5

$-3 + \frac{5}{2}r = 9.5$

① Multiply $\frac{5}{2}$ to 5

② Divide 2 from 25

③ Add -3 to 12.5

④ the solution is 9.5
when $r = 5$

Station 4

- Evaluate the expression and write the equation that models the truth statement.
- Construct the story of x .

Expression: $-6.2m - 4.8$

Truth Statement: $m = -3$

$$m = -3$$

$$-6.2m - 4.8$$

$$-6.2(-3) - 4.8$$

$$18.6 - 4.8$$

$$13.8$$

$$-6.2m - 4.8 = 13.8$$

Story of m

① Multiply (-6.2) to (-3)

② Subtract 4.8 from the product

③ The solution is 13.8 when $m = -3$

Station 5

- Evaluate the expression and write the equation that models the truth statement.
- Construct the story of x .

Expression: $6(3y + 8) + \frac{1}{3}$

Truth Statement: $y = -7$

$y = -7$

$6(3y + 8) + \frac{1}{3}$

$6(3(-7) + 8) + \frac{1}{3}$

$6(-21 + 8) + \frac{1}{3}$

$6(-13) + \frac{1}{3}$

$(-\frac{233}{3}) \rightarrow -78 + \frac{1}{3}$

$-\frac{233}{3}$

$6(3y + 8) + \frac{1}{3} = -\frac{233}{3}$

Story of y

- ① Multiply 3 to (-7)
- ② Add 8 to the product
- ③ Multiply 6 to the sum
- ④ Add $\frac{1}{3}$ to the product
- ⑤ the solution is $-\frac{233}{3}$
when $y = -7$

Station 6

a) Identify and correct the error in constructing the story of x .

Expression: $9.1x - 18$

Truth Statement: $x = 2$

$$9.1(2) - 18$$

$$18.2 - 18$$

$$0.2$$

The equation is $9.1x - 18 = 0.2$
when $x = 2$.

Story of x

1. Multiply 2 by 9.1
2. Subtract the product from 18.
3. The solution is 0.2 when $x = 2$.

$$x = 2$$

$$9.1x - 18$$

$$9.1(2) - 18$$

$$18.2 - 18$$

$$0.2$$

$$9.1x - 18 = 0.2$$

story of x

- ① Multiply 9.1 to 2
- ② Subtract 18 from the product
- ③ the solution is 0.2 when $x = 2$

Station 7

- Evaluate the expression and write the equation that models the truth statement.
- Construct the story of x .

Expression: $-4(8 + \frac{1}{3}s)$

Truth Statement: $s = -12$

$$s = -12$$

$$-4(8 + \frac{1}{3}(-12))$$

$$-4(8 - 4)$$

$$-4(4)$$

$$-16$$

$$-4(8 + \frac{1}{3}s) = -16$$

Story of s

① Multiply $\frac{1}{3}$ to (-12)

② Subtract 4 from 8

③ Multiply -4 to the difference

④ The solution is -16
when $s = -12$

Station 8

- a) Identify and correct the error in evaluating the expression and writing the equation that models the truth statement.
- b) Construct the story of x .

Expression: $7\left(\frac{3-a}{2}\right)$

Truth Statement: $a = 9$

$$7\left(\frac{3-9}{2}\right)$$

$$7\left(\frac{-6}{2}\right)$$

$$7(3)$$

$$21$$

The equation is $7\left(\frac{3-a}{2}\right) = 21$
when $a = 9$.

$$a = 9$$

$$7\left(\frac{3-a}{2}\right)$$

$$7\left(\frac{3-9}{2}\right)$$

$$7\left(\frac{-6}{2}\right)$$

$$7(-3)$$

$$-21$$

$$7\left(\frac{3-a}{2}\right) = -21$$

Story of a

① subtract 9 from 3

② Divide 2 from the difference

③ Multiply 7 to the Quotient

④ the solution is -21
when $s = 9$