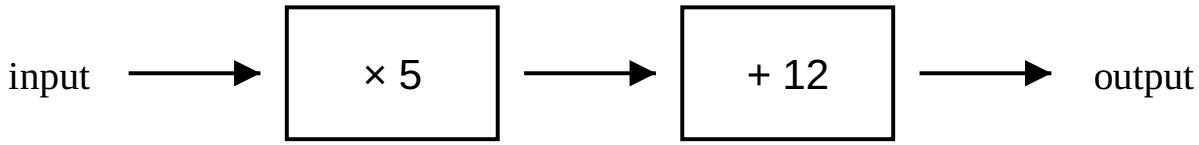
ALGEBRA: NUMBER MACHINES

Best Guess Mastery Worksheet (Target Grade 2/3)

I Do

Here is a number machine Katie uses.



(a) Find the output when the input is 7

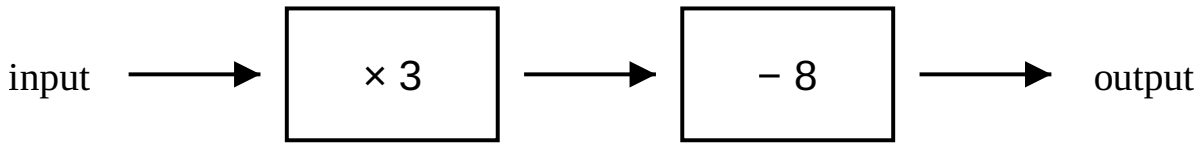
(1)

(b) Find the output when the input is −3

(1)

We Do

Here is a number machine Zoe uses.



(a) Find the output when the input is 6

(1)

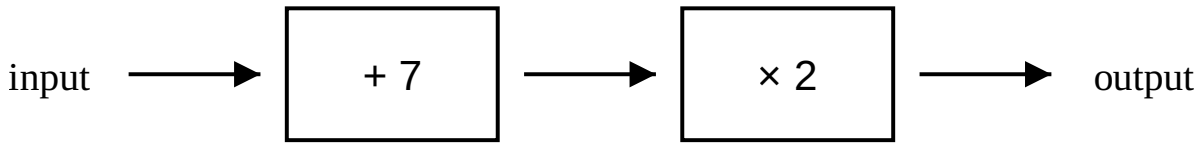
(b) Find the output when the input is −4

ALGEBRA: NUMBER MACHINES

Best Guess Mastery Worksheet (Target Grade 2/3)

You Do 1

Here is a number machine Keeley uses.



(a) Find the output when the input is 5

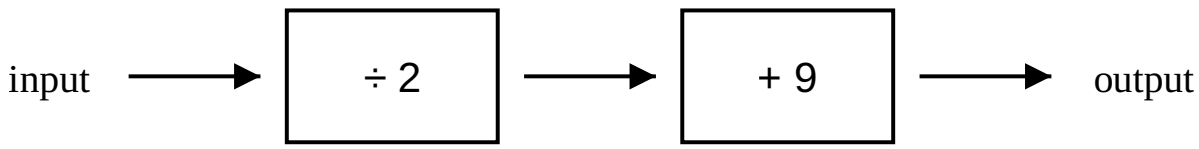
(1)

(b) Find the output when the input is −10

(1)

You Do 2

Here is a number machine Sophie uses.



(a) Find the output when the input is 14

(1)

(b) Find the output when the input is −6

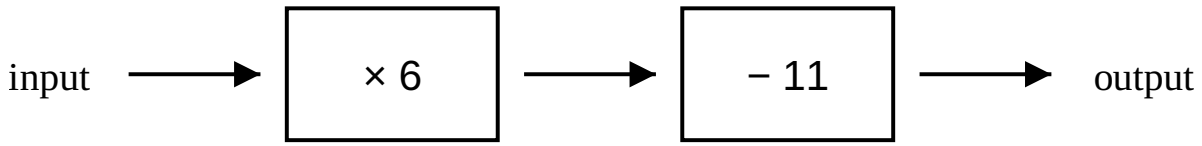
(1)

ALGEBRA: NUMBER MACHINES (INVERSE OPERATIONS)

Best Guess Mastery Worksheet (Target Grade 3/4)

Challenge 1

Here is a number machine John uses.



(a) Find the output when the input is 4

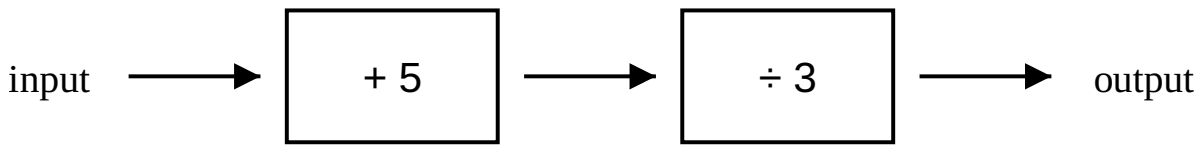
(1)

(b) Find the **input** when the output is 37

(2)

Challenge 2

Here is a number machine Catherine uses.



(a) Find the output when the input is 13

(1)

(b) Find the **input** when the output is −2

(2)

Answers & Worked Solutions

I Do:

(a) $7 \times 5 = 35$. $35 + 12 =$ **47**

(b) $-3 \times 5 = -15$. $-15 + 12 =$ **-3**

We Do:

(a) $6 \times 3 = 18$. $18 - 8 =$ **10**

(b) $-4 \times 3 = -12$. $-12 - 8 =$ **-20**

You Do 1:

(a) $5 + 7 = 12$. $12 \times 2 =$ **24**

(b) $-10 + 7 = -3$. $-3 \times 2 =$ **-6**

You Do 2:

(a) $14 \div 2 = 7$. $7 + 9 =$ **16**

(b) $-6 \div 2 = -3$. $-3 + 9 =$ **6**

Challenge 1:

(a) $4 \times 6 = 24$. $24 - 11 =$ **13**

(b) Work backwards using inverse operations: $37 + 11 = 48$. $48 \div 6 =$ **8**

Challenge 2:

(a) $13 + 5 = 18$. $18 \div 3 =$ **6**

(b) Work backwards using inverse operations: $-2 \times 3 = -6$. $-6 - 5 =$ **-11**