

Find the input given the output

1 Complete the sentences.

- a) The inverse of addition is subtraction.
- b) The inverse of division is multiplication.
- c) The inverse of squaring is square root.

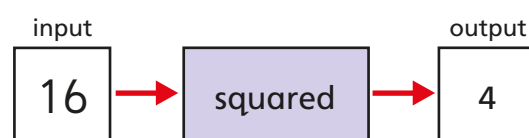
2 Complete the function machines.

- a) input $10 \rightarrow + 10 \rightarrow$ output 20
- b) input $30 \rightarrow - 10 \rightarrow$ output 20
- c) input $2 \rightarrow \times 10 \rightarrow$ output 20
- d) input $200 \rightarrow \div 10 \rightarrow$ output 20

Explain the method you used to find the inputs.

Inverse operations.

3 Annie has found the input for the function machine when the output is 4



What mistake has Annie made?

She hasn't used the inverse.

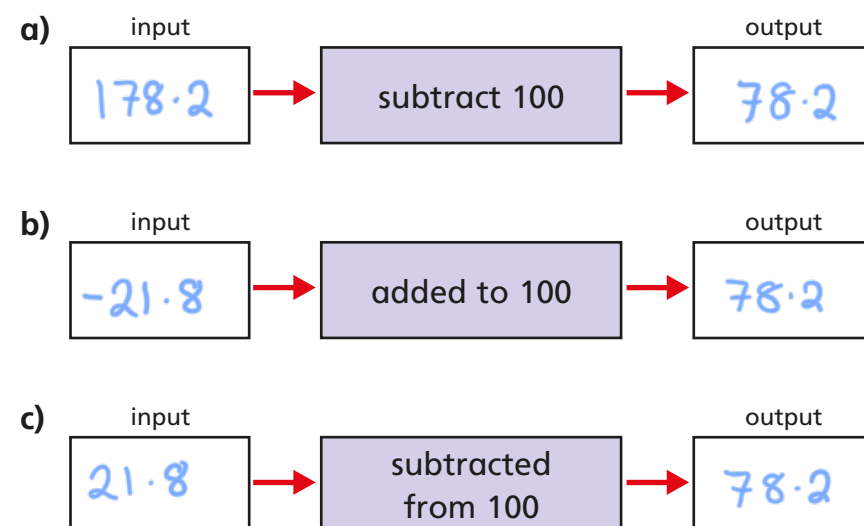
4 Complete the function machines.

- a) input $93 \rightarrow - 57 \rightarrow$ output 36
- b) input $324 \rightarrow \div 9 \rightarrow$ output 36
- c) input $17 \rightarrow + 19 \rightarrow$ output 36
- d) input $6 \rightarrow \text{squared} \rightarrow$ output 36
- e) input $28.8 \rightarrow \times 1.25 \rightarrow$ output 36
- f) input $4.5 \rightarrow \times 8 \rightarrow$ output 36

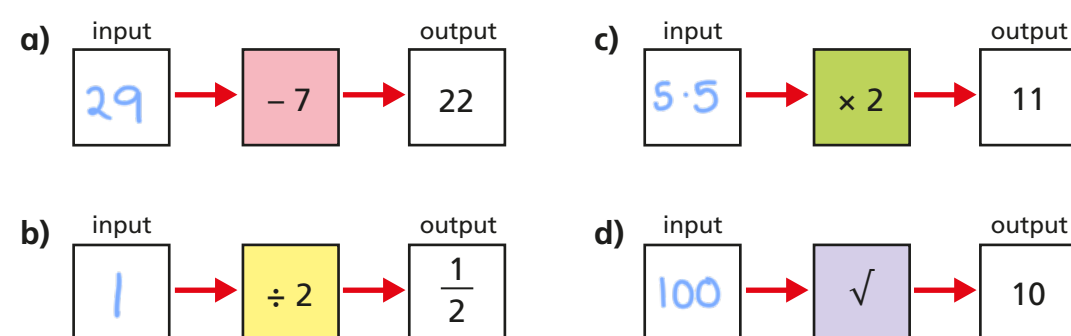
5 Find the input for these function machines if the output for each of them is 400

- a) input $328 \rightarrow + 72 \rightarrow$ output 400
- b) input $80 \rightarrow \times 5 \rightarrow$ output 400
- c) input $800 \rightarrow \div 2 \rightarrow$ output 400
- d) input $459 \rightarrow - 59 \rightarrow$ output 400
- e) input $600 \rightarrow \div 1.5 \rightarrow$ output 400
- f) input $20 \rightarrow \text{squared} \rightarrow$ output 400

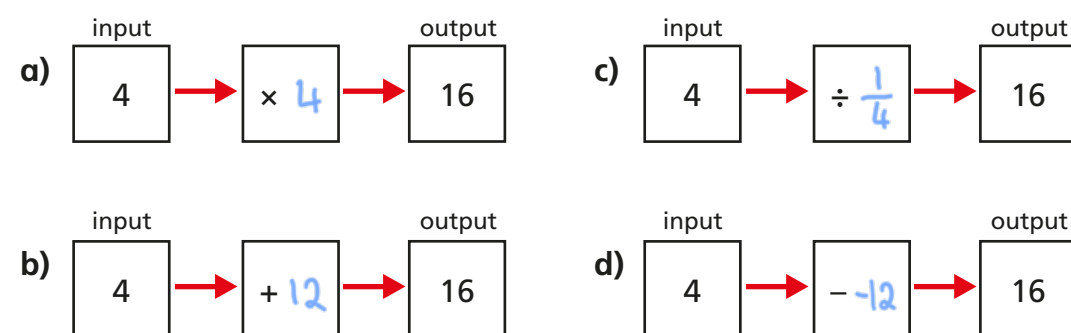
- 6 Find the input for these function machines if the output for each of them is 78.2



- 7 Find the inputs of the function machines.

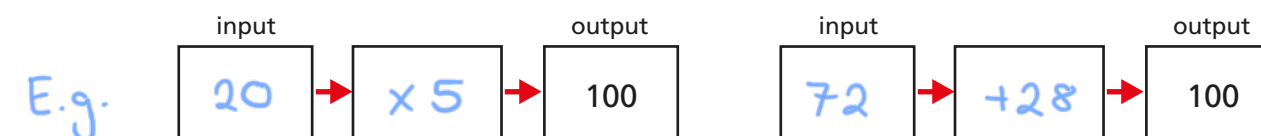


- 8 Complete the function machines.

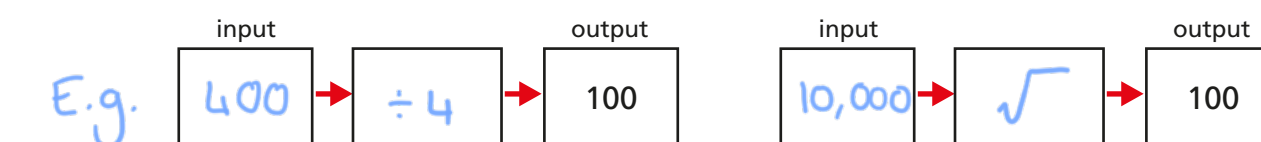


- 9 Write different operations to complete the function machines, using the given inputs.

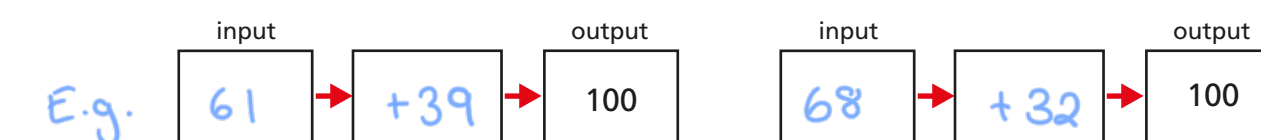
- a) The input is less than 50



- b) The input is more than 200



- c) The input is between 60 and 70



- d) The input is less than 0

