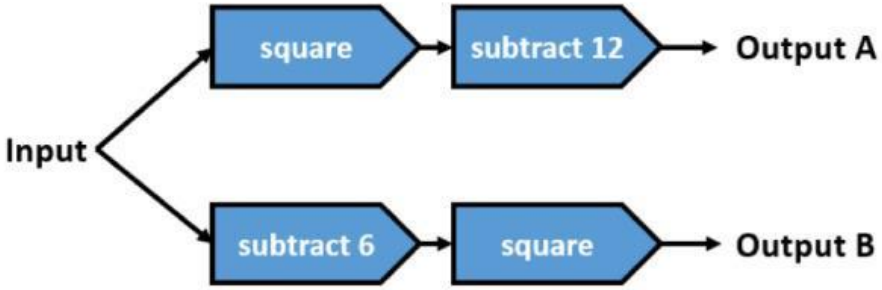
FUNCTIONS

LET'S WARM UP :

Here is a function machine that produces two outputs, A and B.



Work out the range of input values for which the output A is less than the output B.

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EVALUATE THE FOLLOWING FUNCTIONS :

Find f(4) if ,

$f(x) = x + 8$

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Find f(2) if ,

$f(x) = x^2+6x+3$

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Find f(5) if ,

$f(x) = \frac{5x+5}{2}$

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Find f(-2) if ,

$f(x) = (4x^2-4) - 12$

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Find f(6) if ,

$f(x) = 2(2x - 1) + (x+6)^2$

Find f(2) if ,

$f(x) = x^2+6x+3$

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Find f(-3) if ,

$f(x) = 3 - 5x - 2x^2$

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Find f(-2) if ,

$f(t) = \frac{t}{2t+6}$

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Find f(0) if ,

$f(z) = \frac{1}{z+2}$

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Find f(-1) if ,

$f(z) = \frac{z}{z-5} - \frac{4}{z-8}$

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Functions : using equations

$f(x) = 5 - 5x$

Find x , if f(x) = -20

x = _____

$f(x) = x^2 - 5$

Find x , if f(x) = 11

x = _____

$f(a) = \frac{7-6a}{4}$

Find a , if f(a) = -8.75

x = _____

f(x) = 5(6x + 8)

Find x , if f(x) = 235

x = _____

f(t) = 3t + 6

Find t , if f(t) = -21

x = _____

$f(x) = \frac{8+7x}{2}$

Find x , if f(x) = 18

x = _____