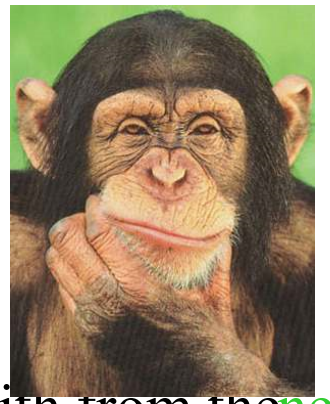
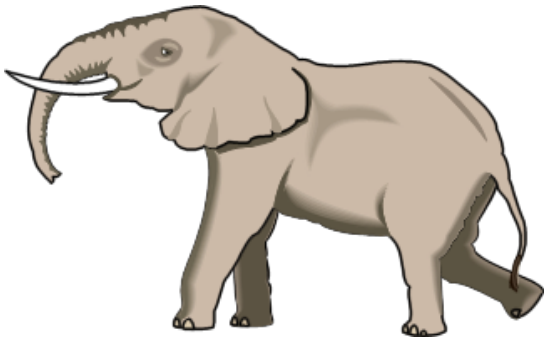
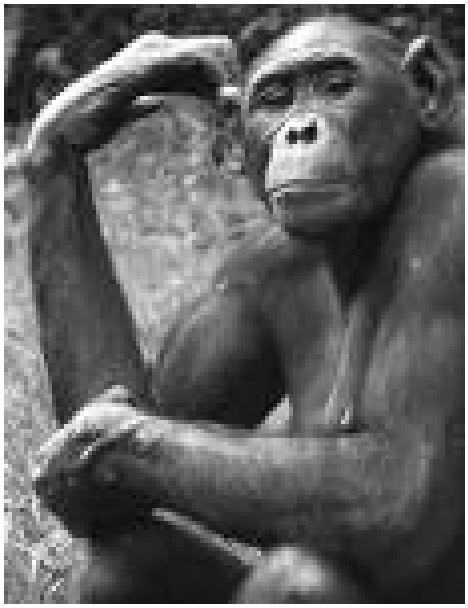


- Think of a number (1 or 2 digits)
- Double it
- Add 8
- Divide by 2 to get a new number
- Subtract the number you started with from the new number.
- Find the letter that corresponds in the alphabet. (A = 1, B = 2, C = 3, etc.)
- Think of a country beginning with that letter.
- Take the second letter of the name of that country, and think of an animal starting with that letter.
- Think of the color of that animal.

Was it a gray elephant in Denmark?





Let's try another . . . .

- Choose a number
- Add 5
- Double the result
- Subtract 4
- Divide the result by 2
- Subtract the number you started with

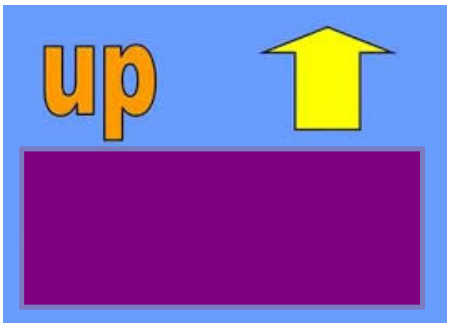
3

Algebra can explain these tricks:

- Choose a number x
- Add 5 $x + 5$
- Double the result $2(x + 5)$
- Subtract 4 $2x + 10 - 4$

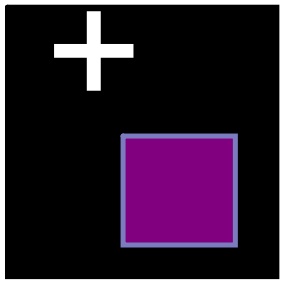
  $2x + 6$
- Divide the result by 2 $x + 3$
- Subtract the number you started with $x + 3 - x$

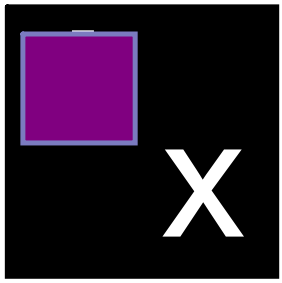
EQUATIONS


up

curly

The
OPPOSITE
Game




X

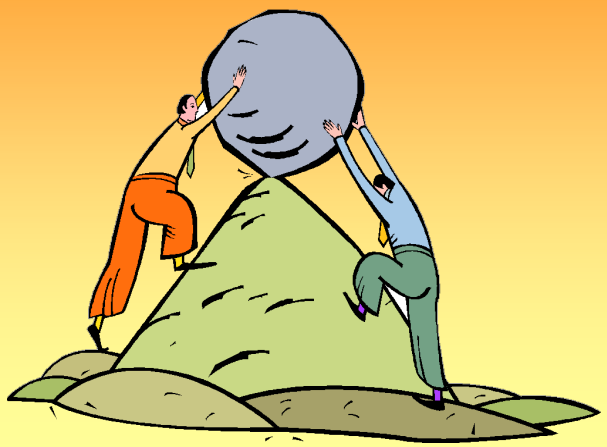
To solve equations you must do the opposite!!

1. $x + 3 = 7$ (−3)

$x = 4$

$7x = 21$ (÷7)

$x = 3$



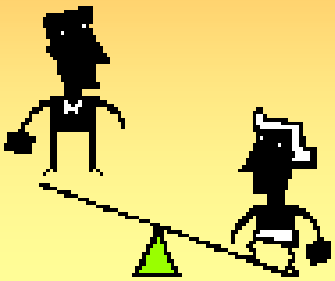
3. $x - 11 = 20$ +11

$x = 31$

4. Hang on!! +4

$\frac{5x}{5} = \frac{25}{5}$

$x = 5$



5. $4x - 11 = 21$ +11

Yes I can!!

$\frac{4x}{4} = \frac{32}{4}$

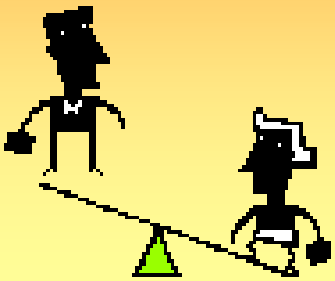
$x = 8$

6.

Bring it on!! -20

$\frac{5x}{5} = \frac{35}{5}$

$x = 7$

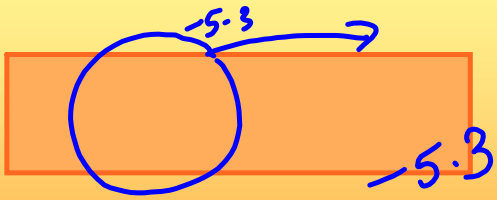


STOP!
Try a few first!

4. $\frac{x}{3} = 11$ ×3 ×3

$3 \cdot \frac{x}{3} = 11 \cdot 3$

$x = 33$

5. 

$x = 6.1$

5.

$$10 = -3x - (-11)$$

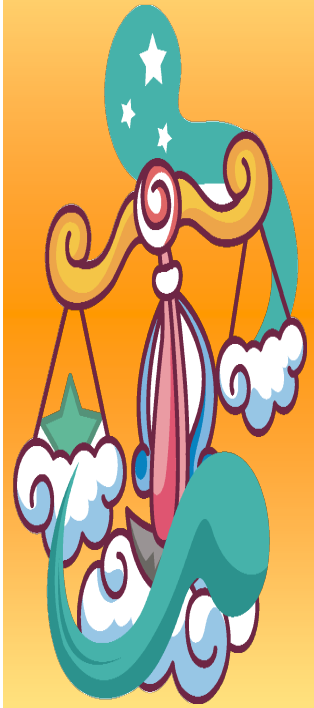
$-3x - (-11) = 10$

$-3x + 11 = 10 - 11$

$\frac{-3x}{-3} = \frac{-1}{-3}$

$x = +\frac{1}{3}$

6. $-7g-(-3)=-4$



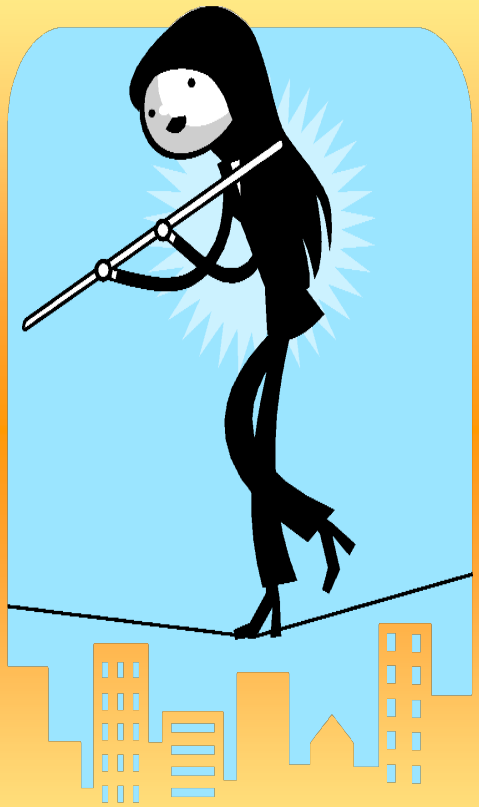
$-7g+3=-4-3$

$\frac{-7g}{-7}=\frac{-7}{-7}$

$g=+1$

7.

$$-7y-20=-34$$



8.

$$2x - 5 = 15$$

9.

$$\frac{x}{3}+4=9$$

$\times 3$ $\times 3$ $\times 3$

$x + 12 = 27$ -12

$x = 15$

10.

$$\frac{2x}{5} + 1 = 9$$

$\times 5$ $\times 5$ $\times 5$

$2x + 5 = 45 - 5$

$\frac{2x}{2} = \frac{40}{2}$

$x = 20$