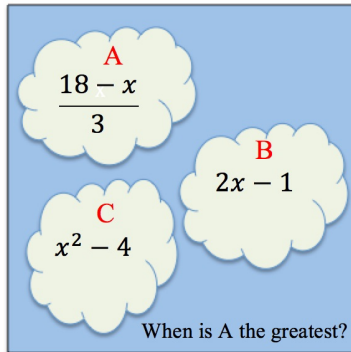


## ALMOST TOTAL INEQUALITY



A

$$\frac{18 - x}{3}$$

B

$$2x - 1$$

C

$$x^2 - 4$$

When is A the greatest?

When  $x$  is zero,  $A$  is greater than both  $B$  and  $C$

For what other values of  $x$  is  $A$  the greatest?

For what values of  $x$  is  $B$  the greatest?

For what values of  $x$  is  $C$  the greatest?

Is there a value of  $x$  when neither  $A$  nor  $B$  nor  $C$  is greater than the other two?

You may like to find the answers either algebraically or graphically.

## HELP

Sketch a graph – don't bother with its equation – just say that some algebraic expression involving  $x$  and  $y$  is ZERO on the graph. For example,  $x + y - 3$  is zero on the line  $x + y = 3$ .

Then ask yourself what happens to the value of the expression which is zero on the graph if you move up from the graph?

What happens to the value of the expression if you move to the right of the graph?

What happens if you move down below the graph?

What happens if you move to the left?

## NEXT

Quadratic Matching 1 <https://aiminghigh.aimssec.ac.za/quadratic-matching-1/>