JustMaths

MATHS TOP TRUMPS

REVISION : Simultaneous equations, inequalities, gradient between two points and rearranging the equation of a straight line in the form ax + by + c = 0

This Top Trumps maths resource has been produced by JustMaths and can be used in the classroom for revising these GCSE A* topics or for Core 1. The cards are differentiated so that the activity is accessible to most groups of students to enable them to practise these topics at various levels of difficulty.

Here are a few ideas for using these cards in your lessons:

- Use the differentiation to demonstrate progress throughout the lesson, by giving the students red (pink) and orange cards initially and then introduce the green cards as a challenge.
- Allow students to choose the combination of colours that they play with, or even let them play with all three colours if they choose.
- As a final, or mid-lesson plenary, choose a card (or two) from the appropriate level, that the students have to solve to demonstrate their learning. You can do this as a whole class or with individual students.

Even if you don't remember how to play Top Trumps, there's no need to worry as your students will ... They will also be practising lots of maths too, without even noticing!

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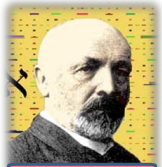

Georg Cantor

Intelligence:	highest value of x $x^2 = 4x$
Resilience:	$2x - 5 < 7$
Speed:	Gradient of line (4,2) and (6,3)
Greatness:	y value of $2x + 3y = 8$ $3x - y = 23$

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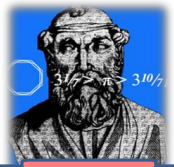
Rene Descartes

Intelligence:	highest value of x $x^2 = 25x$
Resilience:	$5x + 9 \geq x + 20$
Speed:	Gradient of line (-1,3) and (5,4)
Greatness:	y value of $4x - 5y = 4$ $6x + 2y = 25$

MATHS TOP TRUMPS



Archimedes

Intelligence:	highest value of x $3x^2 = 6x$
Resilience:	$12 - 3x < 27$
Speed:	Gradient of line (-4,5) and (1,2)
Greatness:	x value of $7x + 3y = 16$ $2x + 9y = 29$

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Euclid

Intelligence:	highest value of x $3x^2 = 30x$
Resilience:	$2x - 3 < 5$
Speed:	Gradient of line (2,-3) and (6,5)
Greatness:	x value of $4x + 3y = 22$ $2x - y = 6$

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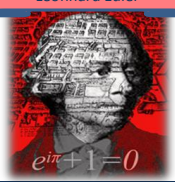
Leonhard Euler



Intelligence:	highest value of x $x^2 + 3x + 2 = 0$
Resilience:	$5x + 4 \geq 39$
Speed:	Gradient of line (-3,4) and (7,-6)
Greatness:	y value of $4x + 3y = 22$ $2x - y = 6$

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Pierre de Fermatt

Intelligence:	highest value of x $x^2 + 5x + 4 = 0$
Resilience:	$6x - 3 > 2x + 7$
Speed:	Gradient of line (-12,3) and (-2,8)
Greatness:	x value of $2x + 3y = 8$ $3x - y = 23$

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Gauss

Intelligence:	highest value of x $x^2 + 7x + 10 = 0$
Resilience:	$5x + 6 \leq -12 - x$
Speed:	Gradient of line (-2,-4) and (10,2)
Greatness:	x value of $4x - 5y = 4$ $6x + 2y = 25$

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Lagrange

Intelligence:	highest value of x $x^2 - x - 6 = 0$
Resilience:	$15 - x > 4$
Speed:	Gradient of line (1/2, 2) and (3/4, 4)
Greatness:	y value of $7x + 3y = 16$ $2x + 9y = 29$

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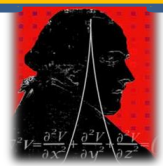
Pierre Laplace



Intelligence:	highest value of x $x^2 - 8x + 15 = 0$
Resilience:	$21 - 2x > 8 + 3x$
Speed:	Gradient of line (1.3,-2.2) & (8.8,-4.7)
Greatness:	y value of $5x + 2y = 6$ $3x - 10y = 26$

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Ada Lovelace

Intelligence:	highest value of x $x^2 - 9x + 20 = 0$
Resilience:	$1 + x < 25 + 3x$
Speed:	Gradient of line (-2.4, 9.6) and (0,0)
Greatness:	x value of $2x - y = 12$ $6x + 2y = 21$

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Pascal

Intelligence:	highest value of x $x^2 - 5x - 6 = 0$
Resilience:	$7x - 7 < 7 - 7x$
Speed:	Gradient of line (-4, -1) and (6,4)
Greatness:	y value of $3x + 8y = 33$ $6x = 3 + 5y$

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G W Leibniz

Intelligence:	highest value of x $x^2 - 4x - 12 = 0$
Resilience:	$5 - 0.5x \geq 1$
Speed:	Gradient of line (-1, -5) and (-3,3)
Greatness:	x value of $3x - 2y = -6$ $6x + 3y = 2$

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Pythagoras

Intelligence:	highest value of x $2x^2 + 7x + 3 = 0$
Resilience:	$5x + 4 > 12 - 2x$
Speed:	Gradient of line $3x - 4y + 8 = 0$
Greatness:	y value of $3x - 2y = -6$ $6x + 3y = 2$

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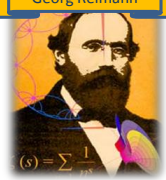
Georg Reimann



Intelligence:	highest value of x $6x^2 - 7x - 3 = 0$
Resilience:	$2(x - 3) \geq 0$
Speed:	Gradient of line $4x - 5y - 10 = 0$
Greatness:	x value of $3x + 8y = 33$ $6x = 3 + 5y$

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Sir Isaac Newton

Intelligence:	highest value of x $6x^2 - 5x - 6 = 0$
Resilience:	$8(1 - x) > x - 1$
Speed:	Gradient of line $-2x + y - 9 = 0$
Greatness:	x value of $5x + 2y = 6$ $3x - 10y = 26$

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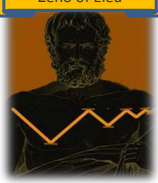
Zeno of Elea



Intelligence:	highest value of x $4x^2 - 16x + 15 = 0$
Resilience:	$2(x - 3) - (x + 12) < 0$
Speed:	Gradient of line $7x + 4y + 12 = 0$
Greatness:	y value of $2x - y = 12$ $6x + 2y = 21$

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Madame Kowalevski

Intelligence:	highest value of x $3x^2 + 5x = 2$
Resilience:	$4(2 - x) > x - 1$
Speed:	Gradient of line $2x - 4y + 5 = 0$
Greatness:	y value of $x + 3y = 11$ $4x - 7y = 6$

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Kurt Gödel

Intelligence:	highest value of x $(2x - 3)^2 = 9$
Resilience:	$2(x + 3) \geq 0$
Speed:	Gradient of line $10x - 5y + 1 = 0$
Greatness:	x value of $4x - 3y = 40$ $2x + y = 5$

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Finonacci

Intelligence:	highest value of x $(x - 7)^2 = 36$
Resilience:	$5x - 4 > 12 + 2x$
Speed:	Gradient of line $-x + 2y - 4 = 0$
Greatness:	y value of $3x - y = 7$ $10x + 3y = -2$

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David Hilbert

Intelligence:	highest value of x $2x^2 = 8$
Resilience:	$5x + 4 < 12 - 2x$
Speed:	Gradient of line $-3x + 6y + 7 = 0$
Greatness:	x value of $2y = 2x - 3$ $3y = x - 1$

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Ramanujan

Intelligence:	highest value of x $3x^2 = 5$
Resilience:	$2(x + 3) + (x - 12)<0$
Speed:	Gradient of line $4x + 2y - 9 = 0$
Greatness:	x value of $3x - y = 7$ $10x + 3y = -2$

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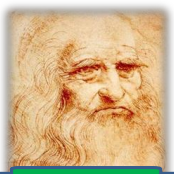

Da Vinci

Intelligence:	highest value of x $(x - 3)^2 = 13$
Resilience:	$2(x - 3) + (x - 12)<0$
Speed:	Gradient of line $9x + 6y + 2 = 0$
Greatness:	y value of $2y = 2x - 3$ $3y = x - 1$

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Alan Turing

Intelligence:	highest value of x $(3x - 1)^2 = 11$
Resilience:	$2(x - 3) + (x - 12)<0$
Speed:	Gradient of line $-5x + 4y + 2 = 0$
Greatness:	x value of $x + 3y = 11$ $4x - 7y = 6$

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Aristotle

Intelligence:	highest value of x $6x^2 - 7 = 11x$
Resilience:	$2(x - 3) + (x + 12)<0$
Speed:	Gradient of line $7x - 2y + 3 = 0$
Greatness:	y value of $4x - 3y = 40$ $2x + y = 5$