

13+..Algebra recap 2

DAY 1

Solve the following linear equations

$3(a + 2) - 2a = 0$	$2(5a - 13) + 3(3a - 12) = 0$
$2a - 7(a - 5) = 21$	$7(2a - 5) - 4(a + 12) = 4$
$41a + 23(7 - a) = 0$	$8a - 5a + 14a - 77 = 7$
$-6(-a + 12) = -5$	$a(7 - 9 + 3) - 12 = 12$
$-1(78 - a) + 5a = -4$	$3(9a - 9) + 8a = -1$

DAY 2

Solve the following equations

$\frac{2a-5}{14} = \frac{3a}{2}$	$\frac{7-3a}{9a} = \frac{-22}{2}$
$\frac{2a-5}{4a} = \frac{3}{2}$	$\frac{10}{14} = \frac{3a}{a+5}$
$\frac{a-15}{1} = \frac{3a}{12}$	$\frac{2}{7} = \frac{3a+7}{2+4a}$
$\frac{a-10}{7a} = \frac{3}{5}$	$\frac{1}{4} = \frac{3a}{-2+4a}$
$\frac{9-5a}{-2} = \frac{3a}{2}$	$\frac{2-2a}{-1} = \frac{3a}{8}$

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DAY 3

Make y the subject

$8xyz = 22$	$\frac{12y}{12x} = 13s - 12$
$12xy = 22x + 6$	$\frac{12-3y}{12} = \frac{56y}{2}$
$s = xyz + 7y$	$13y^2 + 4 = -12x$
$y^2 = 12x + 44$	$\frac{12a}{y} = 8y - 4$
$\sqrt{y} = 22x - 15$	$6x + 12\sqrt{y} = 13$

DAY 4

Solve making the following substitutions

$7x - 2y, \quad x = -1, y = 4$	$I = \frac{prt}{100}, \quad p = 20, r = 3, t = 2$
$32ab^2, \quad a = 2, b = -2$	$A = p(1 - \frac{r}{100}), p = 120, r = 2$
$v = \frac{4}{3}r^3, \quad r = 2$	$A = \frac{22}{7}r^2, \quad r = 7$
$s = 2(l + b), \quad l = 5, b = 10$	$32a - 21b, \quad a = -1, b = -1$
$c = \frac{s-100}{2}, \quad s = 230$	$\frac{12y-12}{12}, y = 0$

DAY 5

If the sum of three two consecutive numbers is 33, find the numbers

The age of Shreya is x . His father is three times older than him. If the sum of their ages is 80, find Shreya's age.

Three angles of a triangle add up to 180. If one angle is x , second is $2x$ and third is $4x$, find the angles.

There are 33 marbles in the bag. Kamal has x and his friend has double than what Kamal has. How many marbles his friend has ?

If the cost of one pencil is x and the cost of rubber is Rs 2 less than the cost of pencil. I paid Rs 50 for 2 pencils and 3 rubbers. How many pencils and rubbers did I purchase?

Two sides of a rectangle are $(x-3)$ and $(x+5)$. Find its perimeter.

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In the above question, if $x = 12$, what would be its perimeter ?

Imagine that initially you had x chocolates and your friend had three more than you. If there are a total of 53 chocolates combining both of yours and your friend's , how many each of you had?

Suppose you had \$ x with you and your friend has three times more money than what you have currently. If your friend gives \$2 to you, then the total money combining both yours and your friend's become \$ 54. How much money you each had earlier.

DAY 6

Frame 10 word problems yourself and try to solve them ..