

# Why Do Girls Like Guys Who Wear Shirts With Eight Buttons?

Solve each equation below and find your solution at the bottom of the page.  
Write the letter of that equation above the solution.

(E)  $4(5n - 7) = 10n + 2$

(N)  $9(x + 3) = 4x - 3$

(A)  $2(12 - 8x) = x - 11x$

(H)  $3t + 8(2t - 6) = 2 + 14t$

(E)  $2v + 18 = 16 - 4(v + 7)$

(I)  $4x - (9 - 3x) = 8x - 1$

(T)  $12(3 + y) = 5(2y + 8)$

(A)  $-7(1 - 4m) = 13(2m - 3)$

(Y)  $9(11 - k) = 3(3k - 9)$

(S)  $4x + 5(7x - 3) = 9(x - 5)$

(T)  $2(6d + 3) = 18 - 3(16 - 3d)$

(F)  $8(4u - 1) - 12u = 11(2u - 6)$

(C)  $-5 - (15y - 1) = 2(7y - 16) - y$



2	10	3	7	9	29	4	-1	1	-8	-6	-16	-12	-5	



# What Happens When the Smog Lifts in Los Angeles, California?

Simplify each expression below and find your answer at the bottom of the page. Cross out the letter above each correct answer. When you finish, the answer to the title question will remain.

①  $\frac{9x}{x^2 - 25} \cdot \frac{x^2 + 5x}{2x - 4} \cdot \frac{x^2 + 3x - 10}{3x^4}$

②  $\frac{x + 4}{2x^2 - 14x} \cdot \frac{x^3 + 4x^2}{3x - 24} \div \frac{x^2 + 8x + 16}{x^2 - 3x - 28}$

③  $\frac{4x^2 - y^2}{x^2y - xy^2} \cdot \frac{x^2 + xy}{8x + 4y} \div \frac{2x^2 - 7xy + 3y^2}{8x^5y}$

④  $\frac{(2x - 5)^3}{3 - x} \div \frac{2x^2 - 3x - 5}{6x^2 + 15x} \cdot \frac{x^2 - 2x - 3}{4x^2 - 25}$

⑤  $\frac{x^4 - y^4}{3x^2y - 3xy^2} \div \frac{x^2 + 2xy + y^2}{9xy^3} \div \frac{4x^2 + 4y^2}{xy^2 + y^3}$

⑥  $(75x^2 - 12) \div \left( \frac{35 - 2x - x^2}{x^2 + 7x} \div \frac{x - 5}{5x^3 + 2x^2} \right)$



A	B	U	S	C	O	L	R	A	Y
$\frac{x(x+4)}{6(x-8)}$	$\frac{3(5x-2)}{x}$	$\frac{2x^3(x+y)}{x-3y}$	$-3x(2x-5)$	$\frac{3y^3(x+y)}{4(x-y)}$	$\frac{3y^4}{4}$	$-3(2x-5)$	$\frac{3(x+5)}{2x^2(x-5)}$	$\frac{x(x+4)}{3(x-7)}$	$\frac{2x^5(x+y)}{(x-y)(x-3y)}$

# What Sound Did the Sheep Hear When Her Sister Exploded?



Solve each equation and find your answer in the rectangle below. Cross out the box that contains your answer. When you finish, write the letters from the remaining boxes in the spaces at the bottom of the page.

$$\textcircled{1} \quad \frac{2}{x+3} + \frac{3}{x+4} = \frac{7}{x^2 + 7x + 12}$$

$$\textcircled{2} \quad \frac{4}{x-5} + \frac{1}{x+2} = \frac{2x+7}{x^2 - 3x - 10}$$

$$\textcircled{3} \quad \frac{a-30}{a^2 + 4a - 21} = \frac{5}{a+7} - \frac{2}{a-3}$$

$$\textcircled{4} \quad \frac{x}{x+4} = \frac{3}{x-1}$$

$$\textcircled{5} \quad \frac{6}{y+2} + \frac{1}{y-2} = 1$$

$$\textcircled{6} \quad \frac{3}{n} + \frac{2}{n-1} = 2$$

$$\textcircled{7} \quad 2 = \frac{x}{x+3} - \frac{3}{x-5}$$

$$\textcircled{8} \quad \frac{1}{d-7} + \frac{d}{d-2} = \frac{5}{d^2 - 9d + 14}$$

$$\textcircled{9} \quad \frac{x-1}{x+1} - \frac{6}{x-3} = 3$$

YE	SI	CK	SB	AM	SH	OO	FR	KO	MB	IG	UP	AH	ER
6, 1	-5, 2	-1	-9	-3, 1	$-\frac{1}{2}$	2, 8	-7, 3	-2	$\frac{1}{4}, -1$	$\frac{1}{2}, 3$	$\frac{4}{3}$	$\frac{1}{3}, 5$	6, -2

OBJECTIVE 3-h: To solve fractional equations (solving a quadratic equation may be required).

