Did You Hear About...

A the	B novice	C toreador	D who	E was
F arrested	G for	H shooting	I the	J bull ?

Express each sum or difference below in simplest form. Find your answer in the appropriate answer column and notice the word beneath it. Write this word in the box containing the letter of that exercise. Keep working and you will hear about somebody who got a rest.

Ⓐ $\dfrac{5}{a}+2$

Ⓑ $\dfrac{8}{a+4}+3$

Ⓒ $4+\dfrac{5a}{2a-3}$

Ⓓ $\dfrac{7}{3a-1}-2$

Ⓔ $\dfrac{a-9}{5a+2}-6$

Ⓕ $\dfrac{3x+1}{x^2+10}+4$

Ⓖ $\dfrac{5}{x^2-9}+\dfrac{2}{x-3}+1$

Ⓗ $\dfrac{x}{x+2}+\dfrac{x}{x-2}-5$

Ⓘ $\dfrac{10}{x-3}-\dfrac{10}{x+5}+2$

Ⓙ $3+\dfrac{2x}{x-2}-\dfrac{5x}{x-5}$

Answers F–J:

$\dfrac{2x^2+4x+50}{(x-3)(x+5)}$ Ⓘ THE	$\dfrac{x^2+5x+30}{x^2+10}$ KILLED	$\dfrac{x^2+2x+2}{(x+3)(x-3)}$ Ⓖ FOR	$\dfrac{-3(7x-10)}{(x-2)(x-5)}$ Ⓙ BULL	$\dfrac{x^2+6x-30}{(x-3)(x+5)}$ SPITBALLS	$\dfrac{4x^2+3x+41}{x^2+10}$ ARRESTED	$\dfrac{3x^2+x-3}{(x+3)(x-3)}$ Ⓕ WHEN	$\dfrac{-3x^2+20}{(x+2)(x-2)}$ SHOOTING	$\dfrac{-5x^2+12}{(x+2)(x-2)}$ Ⓗ THROWING

Answers A–E:

$\dfrac{11a-15}{2a-3}$ COWBOY	$\dfrac{-29a-21}{5a+2}$ Ⓔ WAS	$\dfrac{8a+17}{a+4}$ FRIENDLY	$\dfrac{2a+5}{a}$ Ⓐ THE	$\dfrac{-3(2a-3)}{3a-1}$ Ⓓ WHO	$\dfrac{3a+20}{a+4}$ Ⓑ NOVICE	$\dfrac{-27a-16}{5a+2}$ TRIED	$\dfrac{13a-12}{2a-3}$ Ⓒ TOREADOR	$\dfrac{-a+10}{3a-1}$ FROM

   OBJECTIVE 1–f: To simplify mixed expressions.

A)

$$\frac{5}{a} + \frac{2xa}{1xa}$$

$$\frac{5}{a} + \frac{2a}{a}$$

$$\frac{5+2a}{a}$$

B)

$$\frac{8}{a+4} + \frac{3}{1}$$

$$\frac{8}{a+4} + \frac{3(a+4)}{a+4}$$

$$\frac{8+3a+12}{a+4}$$

$$\frac{3a+20}{a+4}$$

C)

$$\frac{4}{1} + \frac{5a}{2a-3}$$

$$\frac{4(2a-3)}{2a-3} + \frac{5a}{2a-3}$$

$$\frac{8a-12+5a}{2a-3}$$

$$\frac{13a-12}{2a-3}$$

D)

$$\frac{7}{3a-1} - \frac{2}{1}$$

$$\frac{7}{3a-1} - \frac{2(3a-1)}{3a-1}$$

$$\frac{7-6a+2}{3a-1}$$

$$\frac{-6a+9}{3a-1}$$

$$\frac{-3(2a+3)}{3a-1}$$

E)

$$\frac{a-9}{5a+2} - \frac{6}{1}$$

$$\frac{a-9}{5a+2} - \frac{6(5a+2)}{5a+2}$$

$$\frac{a-9-30a-12}{5a+2}$$

$$\frac{-29a-21}{5a+2}$$

F)

$$\frac{3x+1}{x^2+10} + \frac{4(x^2+10)}{x^2+10}$$

$$\frac{3x+1+4x^2+40}{x^2+10}$$

$$\frac{4x^2+3x+41}{x^2+10}$$

G)

$$\frac{5}{(x+3)(x-3)} + \frac{2(x+3)}{(x-3)(x+3)} + \frac{(x+3)(x-3)}{(x+3)(x-3)}$$

$$\frac{5+2x+6+x^2-9}{(x+3)(x-3)}$$

$$\frac{x^2+2x+2}{(x+3)(x-3)}$$

H)

$$\frac{x(x-2)}{(x+2)(x-2)} + \frac{x(x+2)}{(x-2)(x+2)} - \frac{5(x+2)(x-2)}{(x+2)(x-2)}$$

$$\frac{x^2-2x+x^2+2x-5x^2+20}{(x+2)(x-2)}$$

$$\frac{-3x^2+20}{(x+2)(x-2)}$$

I)

$$\frac{10(x+5)-10(x-3)+2(x^2+2x-15)}{(x+5)(x-3)}$$

$$\frac{10x+50-10x+30+2x^2+4x-30}{(x+5)(x-3)}$$

$$\frac{2x^2+4x+50}{(x+5)(x-3)} = \frac{2(x^2+2x+25)}{(x+5)(x-3)}$$

J)

$$\frac{3\left(\frac{x^2-7x+10}{(x-2)(x-5)}\right)+2x(x-5)-5x(x-2)}{(x-2)(x-5)}$$

$$\frac{3x^2-21x+30+2x^2-10x-5x^2+10x}{(x-2)(x-5)}$$

$$\frac{-21x+30}{(x-2)(x-5)} = \frac{-3(7x+10)}{(x-2)(x-5)}$$