What Happened When the Rye Bread Married the Wheat Bread?

Write the exercise letter in the box with the number of the answer.

For each set of rational expressions, find the least common multiple of the denominators.

(1) **T** $\dfrac{n}{3}, \dfrac{2n}{5}$

(5) **O** $\dfrac{16}{a+6}, \dfrac{3}{2a+12}$

(2) **E** $\dfrac{10}{7n}, \dfrac{3}{2n}$

(6) **E** $\dfrac{3a}{2a+15}, \dfrac{20a}{a-9}$

(3) **I** $\dfrac{n+1}{4n}, \dfrac{n-1}{5n^2}$

(7) **H** $\dfrac{5}{a+3}, \dfrac{14}{a^2-9}, \dfrac{2}{a-3}$

(4) **D** $\dfrac{11n-2}{8n^3}, \dfrac{4n+3}{3n}$

(8) **T** $\dfrac{a-8}{a+5}, \dfrac{a}{a-2}, \dfrac{17}{a^2+3a-10}$

answers

20 $20n^2$ 14 15
11 $30n^3$ 12 $24n^3$
3 $14n$ 8 20
16 $(2a+15)(a-9)$
13 $(a+3)(a-2)$
10 $(a+5)(a-2)$
7 $2(a+6)$
2 $(a+3)(a-3)$

Multiply to clear denominators, then simplify your answer if possible.

(9) **A** $14\left(\dfrac{x}{7} + \dfrac{3x}{2}\right)$

(16) **E** $12x\left(\dfrac{3x+1}{4x} + \dfrac{8}{3x}\right)$
$3(x+1) + 4(8)$
$3x + 3 + 32 = \boxed{3x + 35}$

(10) **J** $10x\left(\dfrac{6}{5x} + \dfrac{2x-3}{10x}\right)$

(17) **T** $6x^2\left(\dfrac{5}{2x} + \dfrac{16}{3x^2}\right)$
$3x(5) + 2(16)$
$\boxed{15x + 32}$

(11) **B** $20x^2\left(\dfrac{x+3}{20x^2} - \dfrac{9}{5x}\right)$

(18) **E** $8x\left(\dfrac{11x+6}{8x} - \dfrac{2(x-5)}{4x}\right)$
$11x+6 - 2(x-5)$
$11x+6 -2x+10 = \boxed{9x+16}$

(12) **Y** $18x\left(\dfrac{4x-1}{9x} - \dfrac{5}{18} + \dfrac{x+2}{2x}\right)$

D $3(x+8)\left(\dfrac{7x-2}{x+8} + \dfrac{6x}{3x+24}\right)$
$3(7x-2) + 6x$
$21x-6 + 6x = \boxed{27x-6}$

(13) **T** $(x+5)(x-5)\left(\dfrac{3}{x+5} + \dfrac{2x+9}{x^2-25} - \dfrac{4}{x-5}\right)$

(14) **R** $(x+4)(x-3)\left(\dfrac{x+1}{x-3} + \dfrac{8x}{x^2+x-12} - \dfrac{5}{x+4}\right)$

(15) **S** $(x+2)(x+7)\left(\dfrac{4x}{x+7} - \dfrac{x-7}{x+2}\right)$

answers

4 $12x + 16$
15 $2x + 9$
5 $-15x + 35$
9 $3x^2 + 8x + 49$
8 $23x$
6 $x - 26$
1 $15x + 32$ — T
17 $4x - 6$
11 $9x + 16$ E
19 $x^2 + 8x + 19$
22 $3x + 35$ E
21 $27x - 6$ D
13 $2x^2 + 8x + 5$
18 $-35x + 3$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
T										E										D	E