If multiplication of polynomial from side of R of a different color and product must simplify.

Questions

A

The polynomials have a form of multiplication, division and factoring to get a perfect square.

B:

Reusing is only used only when two polynomials are side by side as stated in the rules

E - Simplify fully the products and the quotient

F. To maximise the score, the strategy of simplifying the product and the quotient should be used.

P - Polynomial R - Rational.

For 1R

Multiplication of rational expressions

1P

Division of polynomials - P on top of R, quotient must be simplify.

2R - Multiplication of Rational expression - R are side by side, products must simplify.

2P - This is a perfect Square polynomial - two P are side by side, must also be a perfect square and must be a perfect square.

~~3R~~ - 3P - A Perfect Square polynomial. two P are side by side.

3R - Division of Rational fractions expressions : ie R on top of R and the quotient must be simplify.

4R - Multiplication of Rational expressions, R ie R are side by side and the product must simplify.

4P - Perfect square polynomial in which two P are side by side and must be a perfect square

5P - is a perfect square polynomial where two P are side by side and must be a perfect square.

5R. Multiplication of rational expressions where R is side by side and a product which must simplify

6P. A perfect square polynomial - two P are side by side and must be a perfect square.

6R. Multiplication of rational expression - P is on side of R of a different color. The product must simplify.

7P. Multiplication of a polynomial ~~rational expression~~ - P is on side of R of different color and product must simplify

7R. Multiplication of Rational ~~explain~~ Expression - P is on side of R of different color and product must simplify.

8R. Division of ~~polynomial~~ Rational expression - P is on top of R, quotient must ~~simplify~~ simplify

1R $\frac{(x+4)(x+3)}{(4x+3)(x+3)}$ $(x \neq -\frac{3}{4}, x \neq -3)$	2R $\frac{(x+3)(x+8)}{(x+6)(x+7)}$ $[x \neq -6 \quad x \neq -7]$	2P $(3x+5)(2x+7)$	4P $(x+3)(x+3)$ $(x+3)^2$
1P $x^2+14x+45$ $(x+9)(x+5)$	3R $\frac{(4x+9)(2x+3)}{(2x+5)(x+7)}$ $(x \neq -5 \quad x \neq -7)$	5R $\frac{(3x+5)(x+5)}{(7x+4)(5x+3)}$ $(x \neq -\frac{4}{7} \quad x \neq -\frac{3}{5})$	4R $\frac{(5x+3)(4x+5)}{(11x+2)(x+5)}$ $(x \neq -\frac{2}{11} \quad x \neq -5)$
6P $(x+5)(x+5)$ $(x+5)^2$	3P $5x+8$ $(5x-8)(5x-8)$ $=(5x-8)^2$	5P $(2x^2+7)(2x^2+7)$ $(2x^2+7)^2$	7R $\frac{(2x+3)(2x+3)}{(2x+2)(2x+3)}$ $x \neq -2.$

3P

$(5x+8)(5x-8)$

$(5x-8)^2$.

5P =

$(2x^2+7)(2x+7)$

$(2x^2+7)^2$.

7R. $\frac{(2x+3)^2}{2x^2+7x+6}$.

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

$\frac{2x+3}{x+2}$ $x \neq -2$.

1R

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

Expanding the newminator

$(x+4)(x+2)$

$x^2+2x+4x+8$

x^2+6x+8

Expanding the denominator

$(4x+3)(x+3)$

$4x^2+12x+3x+9$

$4x^2+15x+9$

$\{x \neq -\frac{3}{4}, -3\}$

2R

$\frac{(x+3)(x+8)}{(x+6)(x+7)}$

Since Then $x+6$,

Then $x+6=0 \quad x=-6$

$x+7=0 \quad x=-7$

Since denominator cannot be zero hence.

$(x \neq -7, x \neq -6)$

2P

$(3x+5)(2x+7)$

4P $(x+3)(x+3)$

4P

1P) $x^2+14x+45$

we get

$9x, 5x$.

$x^2+9x+5x+45$

$x(x+9)+5(x+9)$

$(x+9)(x+5)$

3R

$\frac{(4x+9)(2x+3)}{(x+5)(x+7)}$

$x+5=0 \quad x=-5$

$x+7=0 \quad x=-7$

Since denominator cannot be zero,

$(x \neq -5, x \neq -7)$

5R

$\frac{(3x+5)(x+5)}{(7x+4)(5x+3)}$

$7x+4=0 \quad x=-\frac{4}{7}$

$5x+3=0 \quad x=-\frac{3}{5}$

$\left(x \neq -\frac{4}{7}, x=-\frac{3}{5}\right)$

4R $\frac{(5x+3)(4x+5)}{(11x+2)(x+5)}$

$11x+2=0 \quad x=-\frac{2}{11}$

$x+5=0 \quad x=-5$

$(x \neq -\frac{2}{11} \quad x \neq -5)$