

What Is an Algebra Teacher's Favorite Breakfast?



Simplify the expression. Look for the letter of the answer in the string of letters near the bottom of the page and cross it out each time it appears. Then write the remaining letters in the space at the bottom of the page.

1 $\frac{x^2 - 49}{6x^3} \cdot \frac{8x^2}{x^2 + 7x}$

2 $\frac{x - 4}{x^3 + 4x^2} \cdot \frac{9x^2 + 36x}{4 - x}$

3 $\frac{2x^2 - 200}{4x^2 - 40x} \cdot \frac{7x + 21}{x^2 + 7x - 30}$

4 $\frac{6x^5}{x^2 - 11x + 18} \div \frac{15x^2}{x^2 + 7x - 18}$

5 $\frac{25 - x^2}{5x^4} \div \frac{x - 5}{x^4 + 5x^3}$

6 $\frac{x^2 - 5x - 24}{8x^2 + 8x} \div (x^2 + 6x + 9)$

7 $\frac{a^2 - b^2}{ab^3} \cdot \frac{a^4b^2}{a^2b - ab^2}$

8 $\frac{a^2 - 9ab + 20b^2}{a^2 + 8ab + 7b^2} \cdot \frac{a + 7b}{a^2 - 8ab + 16b^2}$

9 $\frac{10 + 3a - a^2}{60b} \cdot \frac{75b^5}{5a^2b + 10ab}$

10 $\frac{a^2 - ab - 12b^2}{12} \div \frac{2a^2 + 7ab + 3b^2}{16a + 8b}$

11 $\frac{2b - 9a}{81a^2 - 4b^2} \div \frac{1}{9a + b}$

12 $\frac{a^4 - b^4}{a^4 + a^2b^2} \div \frac{a^2 + 2ab + b^2}{a^3}$

Answers 1-6

U $\frac{7(x + 3)}{2x(x - 3)}$

O $\frac{x - 8}{8x + 3}$

A $\frac{x + 5}{x - 5}$

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

J $\frac{4(x - 7)}{3x^2}$

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

R $\frac{x - 8}{8(x + 1)(x + 3)}$

L $\frac{-9}{x}$

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

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

Answers 7-12

B $\frac{-9a + b}{a + b}$

G $\frac{a - 5b}{(a + b)(a - 4b)}$

S $\frac{2(a - 4b)}{3}$

C $\frac{b^2(a - 5)}{2a^2}$

T $\frac{a(a - b)}{a + b}$

H $\frac{a^2(a + b)}{b^2}$

N $\frac{a^5(a + b)}{b}$

E $\frac{-9a + b}{9a + 2b}$

I $\frac{b^3(a - 5)}{4a}$

X $\frac{a - b}{(a + b)^2}$

S T B U H E A T L C R O F T E N A T J N U P E D I X R G G S

●●●●● answer to puzzle: ●●●●●

Just Before Giving Birth to Her First Child, Why Did Mrs. Plum Yell: "Shouldn't, Couldn't, Wouldn't, Didn't, Can't"?

Simplify the expression, then find your answer in the answer column. Write the two letters next to the answer in the two boxes above the exercise number at the bottom of the page.

1. $\frac{4u+1}{2u} + \frac{5u-2}{7u^2}$

Answers 1-4
RE $\frac{u^2-7}{(u+3)(u+5)}$ **SK** $\frac{28u^2+15u-8}{14u^2}$

2. $\frac{20}{u^2-16} + \frac{3}{u+4}$

AS $\frac{3u+8}{(u+4)(u-4)}$ **SH** $\frac{36u+23}{9u+2}$

3. $\frac{u}{u+5} + \frac{2u}{u^2+8u+15}$

TO $\frac{20u+8}{9u+2}$ **NT** $\frac{28u^2+17u-4}{14u^2}$

4. $\frac{15}{9u+2} + 4$

CT $\frac{u}{u+3}$ **OL** $\frac{6u+11}{(u+4)(u-4)}$

5. $\frac{11a-2}{a^2-4a-12} - \frac{8}{a-6}$

Answers 5-8
NS $\frac{11a+37}{(a-8)(3a+1)}$ **IN** $\frac{5a+12}{(a+2)(a-6)}$

6. $\frac{5}{a-8} - \frac{4}{3a+1}$

ER $\frac{a^2+22a+9}{(a-3)(2a+3)}$ **NG** $\frac{8a^2+9a+2}{(2a+1)(2a-1)}$

7. $\frac{10}{a-3} + \frac{a+8}{2a+3}$

VI $\frac{3}{a+2}$ **SE** $\frac{4a^2+8a+3}{(2a+1)(2a-1)}$

8. $\frac{a}{4a^2-1} + \frac{4}{2a-1} + 2$

ED $\frac{9a+40}{(a-8)(3a+1)}$ **EW** $\frac{a^2+25a+6}{(a-3)(2a+3)}$

9. $\frac{1}{x^2-8x+7} - \frac{x+7}{x-1}$

Answers 9-12
SE $\frac{12x-5}{(3x-2)(x+1)}$ **RA** $\frac{x}{x-1}$

10. $\frac{x}{x-4} + \frac{18}{x^2+x-20} + \frac{2}{x+5}$

OO $\frac{x^2+1}{x+9}$ **IO** $\frac{-x^2+50}{(x-1)(x-7)}$

11. $\frac{9x}{3x-2} - \frac{3x-2}{x+1}$

HA $\frac{x+2}{x-4}$ **LO** $\frac{x+1}{x+5}$

12. $\frac{3x^2+7x}{x^2+8x-9} - \frac{2x}{x+9}$

RA $\frac{-2x^2+51}{(x-1)(x-7)}$ **CO** $\frac{21x-4}{(3x-2)(x+1)}$

4	7	2	10	5	8	11	1	12	3	9	6
---	---	---	----	---	---	----	---	----	---	---	---