Name_____ Date_____Block_____

Day 02 HW LCM & Review of Simplify, Multiply & Divide Rational Expressions

Least Common Denominator

On separate paper, for each set of rational expressions, find the leas common multiple of the denominator.

T $\frac{n}{3}, \frac{2n}{5}$

E $\frac{10}{7n}, \frac{3}{2n}$

I $\frac{n+1}{4n}, \frac{n-1}{5n^2}$

D $\frac{11n-2}{8n^3}, \frac{4n+3}{3n}$

O $\frac{16}{a+6}, \frac{3}{2a+12}$

E $\frac{3a}{2a+15}, \frac{20a}{a-9}$

H $\frac{5}{a+3}, \frac{14}{a^2-9}, \frac{2}{a-3}$

T $\frac{a-8}{a+5}, \frac{a}{a-2}, \frac{17}{a^2+3a-10}$

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 $(a+3)(a-3)$

REVIEW MULTIPLYING AND DIVIDING

On separate paper multiply or divide each problem.

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

Answers 1-6

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

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

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

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

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

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

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

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

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

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