

Unit 4 KEY
Day 02 HW: LCM & Review

Master E

T. $\frac{n}{3}, \frac{2n}{5}, (15)(14)$

O. $\frac{16}{a+6}, \frac{3}{2a+12}, (2(a+6))(7)$
 $2(a+6)$

E. $\frac{10}{7n}, \frac{3}{2n}, (14n)(3)$

E. $\frac{3a}{2a+15}, \frac{20a}{a-9}, (2a+15)(a-9)(16)$

I. $\frac{n+1}{4n}, \frac{n-1}{5n^2}, (20n^2)(20)$

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

D. $\frac{11n-2}{8n^3}, \frac{4n+3}{3n}, (24n^3)(12)$

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

Review

1. $\frac{x^2-49}{6x^3} \cdot \frac{8x^2}{x^2+7x} = \frac{(x+7)(x-7) \cdot 2 \cdot 2 \cdot 2 \cdot x \cdot x}{2 \cdot 3 \cdot x \cdot x \cdot x \cdot x(x+7)} = \frac{4(x-7)}{3x^2}$ J

2. $\frac{x-4}{x^3+4x^2} \cdot \frac{9x^2+36x}{4-x} = \frac{(x-4) \cdot 9x(x+4)}{x^2(x+4)(4-x) \cdot -1} = -\frac{9}{x}$ L

3. $\frac{2x^2-200}{4x^2-40x} \cdot \frac{7x+21}{x^2+7x-30} = \frac{2(x^2-100) \cdot 7(x+3)}{4x(x-10)(x+10)(x-3)}$
 $= \frac{2(x+10)(x-10) \cdot 7(x+3)}{2 \cdot 2 \cdot x(x-10)(x+10)(x-3)} = \frac{7(x+3)}{2x(x-3)}$ U

4. $\frac{6x^5}{x^2-11x+18} \div \frac{15x^2}{x^2+7x-18} = \frac{6x^5}{(x-9)(x-2)} \cdot \frac{(x+9)(x-2)}{15x^2}$
 $= \frac{2 \cdot 3 \cdot x \cdot x \cdot x \cdot x(x+9)}{(x-9) \cdot 3 \cdot 5 \cdot x \cdot x} = \frac{2x^3(x+9)}{5(x-9)}$ F

5. $\frac{25-x^2}{5x^4} \div \frac{x-5}{x^4+5x^3} = \frac{(5+x)(5-x) \cdot x^3(x+5)}{5x^4(x+5)} = -\frac{(x+5)^2}{5x}$ P

$$6. \frac{x^2 - 5x - 24}{x^2 + 8x} \div \frac{x^2 + 6x + 9}{8x(x+1)}$$

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

$$\cdot \frac{1}{(x+3)(x+3)}$$

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