

Finding the LCD of Rational Expressions



Overview of problems



Example Set: A

Find the LCD of the given denominators

$$6t^2, t$$

$$4x^2, 2x^4$$

$$(a+b)^2, -3(a+b)$$

$$y^2 - 25, 2y + 10, y - 5$$

$$2x, 2 - x, x - 2$$

$$5z^2y, 10zy^4, 15z$$



Example Set: B

Find the LCD of the given denominators

$$x^2 + 6x, \quad x^2 + 7x + 6, \quad 9x^2$$

$$5y^2 + 3y - 36, \quad 5y^2 - 12y, \quad 10y^2$$

$$t^2 - 2t - 3, \quad t^2 - 5t + 6, \quad 2(t+1)^2$$

$$5x - 4y, \quad 125x^3 - 64y^3$$

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Overview of problems- KEY



Example Set: A

Find the LCD of the given denominators

$$6t^2, t$$

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$$4x^2, 2x^4$$

$$4x^4$$

$$(a+b)^2, -3(a+b)$$

$$-3(a+b)^2$$

$$y^2 - 25, 2y + 10, y - 5$$

$$2(y+5)(y-5)$$

$$2x, 2-x, x-2$$

$$2x(2-x)(x-2)$$

$$5z^2y, 10zy^4, 15z$$

$$30z^2y^4$$



Example Set: B

Find the LCD of the given denominators

$$x^2 + 6x, \quad x^2 + 7x + 6, \quad 9x^2 \quad 9x^2(x+6)(x+1)$$

$$5y^2 + 3y - 36, \quad 5y^2 - 12y, \quad 10y^2 \quad 10(5y-12)(y+3)y^2$$

$$t^2 - 2t - 3, \quad t^2 - 5t + 6, \quad 2(t+1)^2 \quad 2(t+1)^2(t-3)(t-2)$$

$$5x - 4y, \quad 125x^3 - 64y^3 \quad (5x-4y)(25x^2 + 20xy + 16y^2)$$