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No. :

Date :

A) 1) $8a^2bc - 12ab^3cd + 4b^4c^2d^2$
 $= 4bc(2a^2 - 3ab^2d + b^3cd^2)$

2) $p^2 + 4p + 3$
 $= (p+3)(p+1)$

3) $25y^2 - 4$
 $= 5^2y^2 - 2^2$
 $= (5y-2)(5y+2)$

4) $t^2 - 18t + 72$
 $= (t-6)(t-12)$

5) $9y^2 - 18y + 8$
 $= 3y(3y-2) + 4(3y-2)$
 $= (3y-2)(3y+4)$

B) 1) $\frac{x^2 - 3x - 10}{x^2 - 4}$

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

$= \frac{x-5}{x-2}$

2) $\frac{12x^2 - 19x + 4}{6x^2 - 17x + 12}$

$= \frac{12x^2 - 3x - 16x + 4}{6x^2 - 8x - 9x + 12}$

$= \frac{3x(4x-1) - 4(4x-1)}{2x(3x-4) - 3(3x-4)}$

$= \frac{(4x-1)(-3x-4)}{(-3x-4)(2x-3)}$

$= \frac{4x-1}{2x-3}$

$$c) 1) \sqrt{3x} + 2 = 11$$

$$\sqrt{3x} = 11 - 2$$

$$\sqrt{3x} = 9$$

$$3x = 81$$

$$x = 27$$

$$2.) 4s + 3s - 1 = 41$$

$$7s = 42$$

$$s = 6$$

$$3.) \frac{t}{4} + \frac{5}{3}t = \frac{7}{2}(t-1)$$

$$\frac{t}{4} + \frac{5}{3}t = \frac{7}{2}t - \frac{7}{2}$$

$$\frac{3t}{12} + \frac{20}{12}t = \frac{42t}{12} - \frac{42}{12}$$

$$3t + 20t - 42t = -42$$

$$-19t = -42$$

$$t = \frac{42}{19}$$