Algebra 1 Thurs. 4-11-13 Class Notes

(14) ID 2

$$\frac{(-2r^{-3})^{-2} \cdot (r^4)^3}{r^{-1}}$$

$$(-2)^{-2} r^6 r^{12} = \frac{r^{18}}{(-2)^2}$$

$$= \boxed{\frac{r^{18}}{4}}$$

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(13) ID 2

$$\frac{(a^{-1})^3 \cdot 2a^{-1}}{-2a^{-3} \cdot a^{-4}} = \frac{a^{-3} \cdot 2a^{-1}}{-2a^{-3} a^{-4}}$$

$$\frac{2 a^3 a^4}{a^3 a^1 (-2)} = \boxed{-a^3}$$

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(19) $(7v-2)^2 = \boxed{49v^2 - 28v + 4}$

(21) $7k^3 + 14k^2$

$7k^2(k + 2)$

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(27) $4x^2 + 13x - 12$ SF ✓ GCF —

Sum = b = 13

prod = ac = −48

$-3x + 16x$

$(4x^2 - 3x) + (16x - 12)$

$x(4x - 3) + 4(4x - 3)$

$(4x-3)(x+4)$

or

$(x+4)(4x-3)$

(ex) $4x^2 + 13x - 12 = 0$

USING FACTORING TO SOLVE A QUADRATIC EQUATION:

MAGIC NUMBER METHOD

$(x+4)(4x-3) = 0$

EZPP

Zero Product Property

if $ab = 0$ then $a = 0$ or $b = 0$

$ax^2 + bx + c = 0$

EITHER

$(x+4) = 0$

$x = -4$ ✓

or

$(4x-3) = 0$

$\frac{4x}{4} = \frac{3}{4}$

$x = \frac{3}{4}$

CK $4\left(\frac{3}{4}\right)^2 + 13\left(\frac{3}{4}\right) - 12 \stackrel{?}{=} 0$

$4\left(\frac{9}{16}\right) + \frac{39}{4} - 12 \stackrel{?}{=} 0$

$\frac{48}{4} - 12 \stackrel{?}{=} 0$