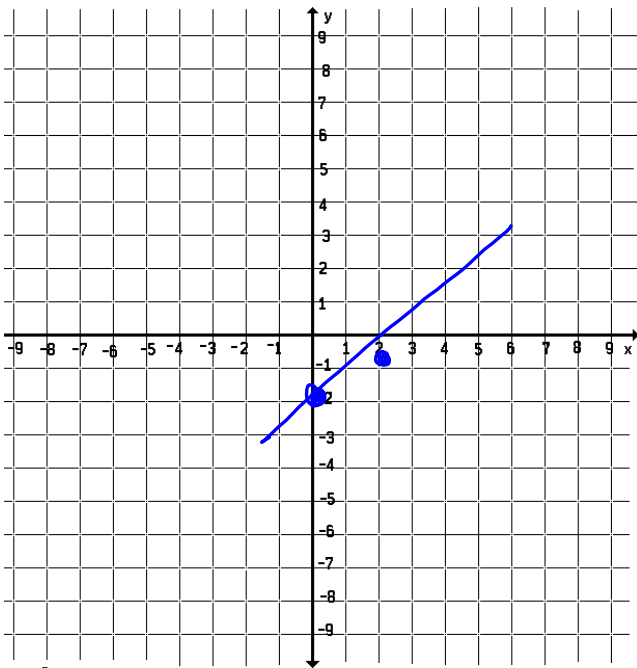



# SMART START



 © 2005, Agnes Azzolino [www.mathnstuff.com/gif9x9not.gif](http://www.mathnstuff.com/gif9x9not.gif)  
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Graph

$$x - 2y = 4$$

$$\begin{array}{r} -x \qquad -x \\ \hline -2y = -x + 4 \\ \hline -2 \quad -2 \quad -2 \end{array}$$

$$y = \frac{1}{2}x - 2$$



Ex 1)  $\frac{4m^3}{4m} + \frac{24m}{4m}$

What we factor  $4m$

$$4m(m^2 + 6)$$

Ex 2)  $\frac{8r^5}{4r^2} - \frac{20r^4}{4r^2} - \frac{12r^2}{4r^2}$

$$4r^2(2r^3 - 5r^2 - 3)$$

$8r^5$        $-20r^4$      $-12r^2$

$\nearrow$

$(2)(2r^4r)$      $-1(2 \cdot 2 \cdot 5 \cdot r^3)$      $-1(2 \cdot 2 \cdot 3r)$

$$\text{Ex 3) } \frac{35a^2b^2}{5ab} - \frac{5ab}{5ab}$$

$$5ab(7ab - 1)$$

$$35a^2b^2$$

↑  
7 5 a a b b

$$-5ab$$

-1 · 5 a · b

Ex 4) You do and share with your neighbor

$$\Downarrow$$

$$4a(5a^2 - 4b) \quad \frac{20a^3}{4a} - \frac{16ab}{4a}$$

$$\text{Ex 5) } \frac{12a^2}{3a} - \frac{9a}{3a} = 0$$

$$a \cdot \frac{12a}{3} - \frac{9}{1} = 0$$

$$3a(4a - 3) = 0$$

$$\begin{aligned} 3a &= 0 \\ \frac{3a}{3} &= \frac{0}{3} \\ a &= 0 \end{aligned}$$

$$4a - 3 = 0$$

$$\frac{4a}{4} = \frac{3}{4} \quad a = \frac{3}{4}$$

✓ Check

$$12\left(\frac{3}{4}\right)^2 - \frac{9}{1}\left(\frac{3}{4}\right) = 0$$

$$\frac{3 \cdot 12 \cdot 9}{1 \cdot 16} - \frac{27}{4} = 0$$

$$\frac{27}{4} - \frac{27}{4} = 0$$

$$0 = 0$$

$$\text{Ex 6) } 20p^2 = -24p$$

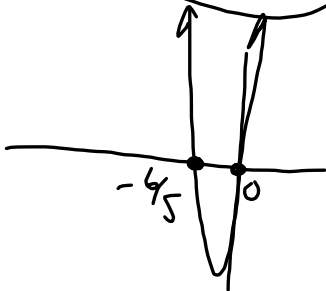
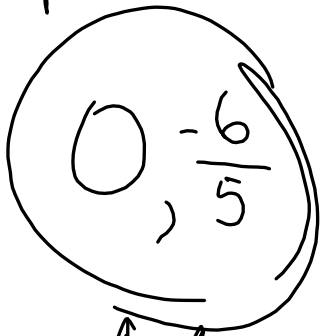
$$\begin{aligned} &+24p \quad +24p \\ \hline 20p^2 + 24p &= 0 \\ \frac{4p}{4p} \quad \frac{4p}{4p} & \end{aligned}$$

$$4p(5p + 6) = 0$$

$$\begin{aligned} 4p &= 0 \\ \frac{4p}{4} &= \frac{0}{4} \\ p &= 0 \end{aligned}$$

$$\begin{aligned} 5p + 6 &= 0 \\ -6 \quad -6 & \\ \hline \end{aligned}$$

$$\frac{5p}{5} = \frac{-6}{5}$$





$$\text{Ex 7) } \frac{6x^2 - 9x + 8x - 12}{3x} = \frac{3x(2x-3) + 4(2x-3)}{3x}$$

$$(2x-3)(3x+4)$$

$$\text{Ex 8) } 5x^2 + 2x - 6 = 15x$$

$$\begin{array}{r} -15x \quad -15x \\ \hline 5x^2 + 2x - 15x - 6 = 0 \end{array}$$

$$\frac{5x^2 + 2x - 15x - 6}{x \quad -3} = 0$$

$$x(5x+2) - 3(5x+2) = 0$$

$$(5x+2)(x-3) = 0$$

$\begin{array}{l} \downarrow \\ 5x+2=0 \\ -2 \quad -2 \\ \hline 5x = -2 \\ 5 \quad \left(\frac{-2}{5}\right) \end{array}$	$\begin{array}{l} \downarrow \\ x-3=0 \\ \quad \quad 3 \quad 3 \\ \hline x = 3 \end{array}$
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$\frac{-2}{5}, 3$

Page 484-485 #~~16-32~~ even  
#~~44,45~~  
#48-58 even

Branche: 1-8/all