

12/5

$$\begin{array}{r}
 5y + 81 = 10x \\
 -81 \quad -81
 \end{array}$$

$$\begin{array}{r}
 5y = 10x - 81 \\
 \underline{5(10x - 81)} \quad 10x \\
 50x - 405
 \end{array}$$

$$\boxed{10x = 81}$$

$$5y = 10(8.1) - 81$$

X	Y
8.1	0
0	16.2

C

$$\begin{array}{l}
 1 \quad 5y + 81 = 10x \\
 5y + 81 = 10(0) \\
 5y + 81 = 0 \\
 \underline{5 \quad 5} \\
 (0, 16.2)
 \end{array}
 \qquad
 \begin{array}{l}
 5(0) + 81 = 10x \\
 0 + 81 = 10x \\
 \underline{10 \quad 10} \\
 (8.1, 0)
 \end{array}$$

 $\frac{13}{5}$

2 multiply or factor.

a $(3x-2)(x-1) =$



B $x^2 - 12x - 28$

C $(4x)(x^2 - x + 7)$

Personal Practice

$$\textcircled{1} \quad \begin{array}{r} 5y + 81 = 10x \\ -81 \quad -81 \\ \hline \end{array}$$

$$5y + 10x = 81$$

$$5(0) + 10x = 81$$

$$10 \quad 10$$

$$\boxed{x = 8.1}$$

$$5y + 10(0) = -81$$

$$\frac{5y}{5} = \frac{-81}{5}$$

$$\boxed{y = -16.2}$$

$$\textcircled{2} \quad (3x-2)(x-1) = 3x^2 - 5x - 2$$

$$\text{a) } \begin{array}{r} 3x-2 \\ \times \begin{array}{|c|c|} \hline 3x^2 & -2x \\ \hline -3x & -2 \\ \hline \end{array} \end{array}$$

$$\text{b) } \begin{array}{|c|c|} \hline x^2 & \\ \hline & -28 \\ \hline \end{array}$$

$$\text{c) } \begin{array}{r} x \\ 4x \begin{array}{|c|c|c|} \hline x^2 & -x & 7 \\ \hline \end{array} \end{array}$$

$$\textcircled{1} \quad 5y + 81 = 10x$$

$$\Rightarrow \frac{5y}{10} + \frac{81}{10} = \frac{10x}{10}$$

$$\frac{x}{y} \quad \Bigg| \quad \frac{y}{x}$$

$$\frac{8.1}{0} \quad \Bigg| \quad 0$$

+4

$$5y - 31 = 10x$$

$$\textcircled{2} \quad 5y + 81 = 0$$

$$\frac{5y}{5} = \frac{-81}{5}$$

$$\textcircled{3} \quad (3x-2)(x-1)$$

$$\begin{array}{r} 3x-2 \\ x \overline{) 3x^2 - 5x + 2} \\ \underline{3x } \\ - 5x + 2 \\ \underline{3x } \\ 2 \end{array}$$

$$3x^2 - 5x + 2$$

$$\textcircled{6} \quad x^2 - 12x - 28 =$$

$$\begin{array}{r} x^2 - \\ x \overline{) x^2} \\ \\ -28 \end{array}$$

x & y intercept.

① $5y + 81 = 10x$

$$5(0) + 81 = 10x$$

$$\frac{81}{10} = \frac{10x}{10}$$

$$8.1 = x$$

$$\boxed{x = 8.1}$$

$$5y + 81 = 10x$$

$$5y + 81 = 10(0)$$

$$5y + 81 = 0$$

$$\begin{array}{r} -81 \quad 81 \\ \hline 5y \quad -81 \\ \hline 5 \quad 5 \end{array}$$

$$+ \frac{2}{5}$$

Multiply or Factor;

$$\boxed{y = -16.2}$$

② $(3x-2)(x-1) =$

③ $x^2 - 12x - 28 =$

④ $(4x)(x^2 - x + 5) =$

4/10

$$\begin{aligned}
 1) \quad 5y + 81 &= 10x \\
 5(0) + 81 &= 10x \\
 0 + 81 &= 10x \\
 81 &= 10x \\
 \frac{81}{10} & \quad \frac{10}{10} \\
 x &= 8.1
 \end{aligned}$$

$$(8.1, 0)$$

$$\begin{aligned}
 5y + 81 &= 0 \\
 -81 - 81 & \\
 \hline
 5y &= -81 \\
 \frac{5}{5} & \quad \frac{5}{5} \\
 \boxed{y} &= -16.2
 \end{aligned}$$

$$+\frac{3}{5}$$

$$2) a) (3x-2)(x-1)$$

warm-up!

Personal Practice

$$5y + 81 = 10x$$

$$5(0) + 81 = 10x$$

$$0 + 81 = 10x$$

$$\frac{81}{10} = \frac{10x}{10}$$

$$x = 8.1$$

x = 8.1

Multiply or Factor

A) $(3x-2)(x-1) = 3x^2 - 5x + 2$

	3x - 2	
x	3x ²	-2x
-		
1	3x	-2

B) $x^2 - 12x - 28 =$

	x	
x	x ²	
		-28

Personal Practice

① find the x & y intercepts of this line: $5y + 81 = 10x$

$$5y + 81 = 10(0)$$

$$5y + 81 = 0$$

$$\begin{array}{r} -81 \quad 81 \\ \hline \end{array}$$

$$\frac{5y}{5} = \frac{-81}{5}$$

$$y = -16.2$$

$$5(0) + 81 = 10x$$

$$\therefore \frac{81}{10} = \frac{10x}{10}$$

$$8.1 = x$$

x	y
8.1	0
0	-16.2

(8.1, 0) (0, -16.2)

② multiply or factor

a) $(3x-2)(x-1) =$

	x	-1	
3x	3x²	-3x	3x ² -5x-2
-2	-2x	-2	

b) $x^2 - 12x - 28 =$

	x	-14	
x	x²	-14x	(x-14)(x+2)
+2	+2x	-28	x=14 y=2

c) $(4x)(x^2 - x + 7)$

Personal Practice

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4/10/09

$$1) \begin{array}{r} 5y + 81 = 10x \\ -81 \quad -81 \\ \hline 5y + 10x = 81 \end{array}$$

$$5y + 10(0) = 81$$

$$\frac{5y}{5} = \frac{81}{5}$$

$$5y + 10x = 81$$

$$5(0) + 10x = 81$$

$$x = 8.1$$

$$y = -16.2$$

$$2) a) (3x-2)(x-1) = 3x^2 - 5x + 2$$

$\frac{+4}{5}$

$$\begin{array}{r} x-1 \\ 3x^2 - 3x \\ \hline 2x + 2 \end{array}$$

$$b) x^2 - 12x - 28 = (x+2)(x-14)$$

$$\begin{array}{r} x-14 \\ x^2 - 14x \\ \hline 2x - 28 \end{array}$$

$$c) (1x)(x^2 - x + 7) =$$

Personal Practice

①

$$5y + 81 = 10x$$

$$\frac{5(0) + 81 = 10x}{10 \quad 10}$$

$$y = 8.1$$

$$\frac{5x + 81 = 10(0)}{-81 \quad -81}$$

$$x = 16.2$$

$$\frac{5x = -81}{5 \quad 5}$$

$$x = \boxed{-16.2}$$

+5

②

$$(3x - 2)(x - 1) =$$

	x	-1
3x	$3x^2$	$-3x$
-2	$-2x$	-2

$$(x - 1)(3x - 2) \quad x = 1 \text{ or } x = 2$$

$$b) \quad \frac{x^2 - 12x - 28}{x \quad -14}$$

x	x^2	$-14x$
12	$2x$	-28

$$(x - 14)(x + 2)$$

$$x = 14 \text{ or } -2$$

PERSONAL PRACTICE

⑩ Find the x- & y-intercepts of this line:

$$By + \cancel{+b}1 = 0$$
$$\underline{\underline{-b1 \quad -b1}}$$

$$5y + 81 = 10x$$

$$5y =$$

$$5(0) + 81 = 10x$$

$$\text{or } 81 = 10x$$

$$\frac{81}{10} = \frac{10x}{10}$$

$$x = 8.1$$

$$(8.1, 0)$$

x	y
0	0

$$x = \frac{81}{10}$$



⑪ Multiply or factor:

a) $(3x-2)(x-1)$:

	x	-1
3x		
-2		

$$6 + \frac{81}{10} = \frac{10x}{10}$$

$$\textcircled{1} 5y + 81 = 10x$$

$$5y + 81 = 0$$

$$\frac{5y}{5} = \frac{-81}{5} \quad y = (0, 16.2)$$

$$x = (8.1, 0)$$

f3
5

$$\textcircled{2} (3x-2)(x-1)$$

$$3x^2 - 3x - 2x + 2$$

$$3x^2 - 5x + 2$$

$$b) x^2 - 12x - 28$$

$$(x-7)(x+4)$$

$$\textcircled{3} (4x)(x^2 - x + 7)$$

$$4x^3(x - x + 7)$$

$$4x^3 - 4x^2 + 28x$$

He all breathing
word and stuff

02-10-09

PRACTICE WITH INTERCEPT

+5
5

- 1) FIND THE X-INTERCEPTS OF THIS LINE

$$\begin{array}{l}
 5y + 81 = 10x \\
 5(0) + 81 = 10x \\
 \frac{81}{10} = \frac{10x}{10} \\
 \boxed{x = 8.1}
 \end{array}
 \qquad
 \begin{array}{l}
 5y + 81 = 10x \\
 5y + 81 = 10(0) \\
 5y + 81 = 0 \\
 \frac{-81}{5} = \frac{-81}{5} \\
 \boxed{y = -16.2}
 \end{array}$$

$$\begin{array}{r|l}
 x & y \\
 \hline
 0 & -16.2 \\
 8.1 & 0
 \end{array}$$

- 2) MULTIPLY OR FACTOR:

a) $(3x-2)(x-1) = 3x^2 - 1 + 2$

$$\begin{array}{r}
 3x-2 \\
 \times \begin{array}{|c|c|} \hline x & 3x^2 & 2x \\ \hline -1 & -3x & 2 \\ \hline \end{array}
 \end{array}$$

b) $x^2 - 12x - 28 = (x-14)(x+2)$

$$\begin{array}{r}
 x-14 \\
 \times \begin{array}{|c|c|} \hline x & x^2 & -14x \\ \hline +2 & 2x & -28 \\ \hline \end{array}
 \end{array}$$

c) $(4x)(x^2 - x + 7) = 4x^3 - 4x^2 + 28x$

$$\begin{array}{r}
 x^2 - x + 7 \\
 \times \begin{array}{|c|c|c|} \hline 4x & 4x^3 & -4x^2 & 28x \\ \hline \end{array}
 \end{array}$$

0 FIND THE x & y - INTERCEPTS OF THIS LINE 0

$$5y + 81 = 0$$

$$5x + 81 =$$

Personal Practice. 4/10/09
 BIK: 1st

① Find the x- & y-intercepts of this line:

$$5y + 81 = 10x$$

$$5y + 81 = 10(0) \quad 5y + 81 = 0$$

$$\begin{array}{r} -81 -81 \\ \hline 5y = -81 \\ \frac{5y}{5} = \frac{-81}{5} \\ \boxed{y = -16.2} \end{array}$$

$$5(0) + 81 = 10x$$

$$(8.1, 0) (0, -16.2)$$

$$\frac{81}{10} = \frac{10x}{10}$$

$$\boxed{81 = x}$$

2) a) $(3x-2)(x-1)$

	x	-1
3x	3x ²	-3x
-2	-2x	2

$$x^2 - 12x - 28$$

	x
x	x ²
	-28

13/3

Personal Practice

5/5 04.10.09

① Find x & y-intercepts of this line =

$$\frac{5y-81}{y} = \frac{10x}{y}$$

$$y = \frac{10x-81}{y}$$

$$y = \frac{10x-81}{y}$$

$$y = 10(0) - 81$$

$$y = -81$$

$$54 + 81 = 1000$$

$$54 + 81 = 0$$

$$54 - 81 = 15$$

$$0 = 10x - 81 + 81$$

$$\frac{81}{10} = \frac{10x}{10}$$

$$x = 8.1$$

$$y = -16.2$$

② multiply or factor:

① $(3x-2)(x-1)$

3x	3x ²	-x
-2	-2x	2

$$3x^2 - 3x + 2$$

② $x^2 - 12x - 28$

x	x ²	2x
-14	-14x	-28

$$(x-14)(x+2)$$

③ $(4x)(x^2-x+7)$

4x	4x ³	-4x ²	28x
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$$4x^3 - 4x^2 + 28x$$

Na

$$54 + 81 = 10x$$

$$5(0) + 81 = 10x$$

$$0 + 81 = 10x$$

$$81 = 10x$$

$$\frac{81}{10} = \frac{10x}{10} \quad x = 8.1$$

$$\begin{array}{r} x \ 8 \\ \hline 0 \\ \hline 0 \end{array}$$

$$2 \quad (3x - 2)(x - 1)$$

3x	3x	

"Practice with intercepts" . 4/10/09

- ① Find the x- & y intercepts of this line:

$$\begin{array}{r} 5y + 81 = 10x \\ -81 \quad -81 \end{array}$$

$$5y + 10x = 81$$

$$5(0) + \frac{10x}{10} = \frac{-81}{10} \quad \boxed{x = -8.1}$$

$$5y + 10(0) = 81$$

$$\boxed{y = -16.2}$$

$$\frac{5y}{5} = -\frac{81}{5}$$

②