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Feb. 7

$$38. \quad \frac{3k^3}{3k} + \frac{15k^2}{3k} - \frac{18k}{3k}$$

$$= 3k(k^2 + 5k - 6)$$

$$= 3k(k+6)(k-1)$$

$$= 3k(k^2 - 1k + 6k - 6)$$

$$= 3k(k^2 + 5k - 6)$$

$$= 3k^3 + 15k^2 - 18k$$

$\times (-6)$
 $+ 5$
 -1

FACTOR, if possible

39. $x^2 + x + 1$

NOT possible

$$\begin{array}{r} x(1) \\ + (1) \end{array}$$

~~$$\begin{array}{r} x \\ - 1 \\ \hline x - 1 \end{array}$$~~

40.

$$a^2 - 7a - 8$$

$$\times (-8)$$

$$= (a - 8)(a + 1)$$

$$+ (-7)$$

$$= a^2 + 1a - 8a - 8$$

$$= a^2 - 7a - 8$$

$$= -8$$

$$\begin{array}{rcl}
 41. & b^2 + 14b + 48 & \begin{array}{l} \times 48 \\ + 14 \\ \hline 6, 8 \end{array} \\
 & = (b+6)(b+8) & \\
 & = b^2 + 8b + 6b + 48 & \\
 & = b^2 + 14b + 48 &
 \end{array}$$

$$23. A^2 - 25a + 24$$

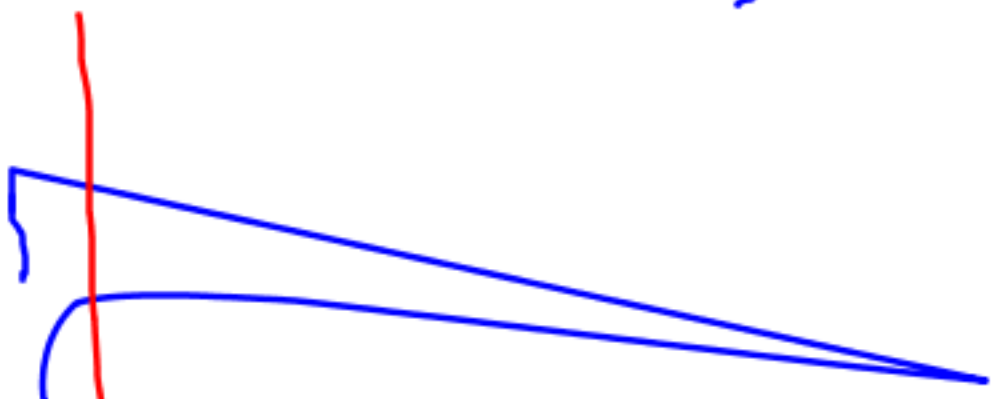
$$(a-1)(a-24)$$

$$\begin{array}{r} a^2 - 24a - 1a + 24 \\ a^2 - 25a + 24 \end{array}$$

$$\textcircled{24}$$

$$\textcircled{-25}$$

$$-1, -24$$



$$24. y^2 - 9y + 14 \quad \times \textcircled{14}$$

$$(y-2)(y-7) \quad + \textcircled{-9}$$

$$y^2 - 7y - 2y + 14 \quad -2, -7$$

$$y^2 - 9y + 14$$

$$29) \frac{3x^2 - 21x + 36}{3}$$

$$= 3(x^2 - 7x + 12)$$

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

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

$$= 3(x^2 - 7x + 12)$$

$$= 3x^2 - 21x + 36$$

$$\begin{array}{r} \times \textcircled{12} \\ + \textcircled{-7} \\ \hline -3, -4 \end{array}$$

$$33. \quad \frac{b^2}{6} + \frac{12b}{6} - \frac{90}{6}$$

$$= 6(b^2 + 2b - 15)$$

$$= 6(b-3)(b+5)$$

$$= 6(b^2 + 5b - 3b - 15)$$

$$= 6(b^2 + 2b - 15)$$

$$= 6b^2 + 12b - 90$$

$$\times \textcircled{15}$$

$$+ \textcircled{2}$$

$$-3, 5$$

$$34) \frac{bx^2 - 28bx + 75b}{b}$$

$$= b(x^2 - 28x + 75) \times (75)$$

$$= b(x - 3)(x - 25) + (-28)$$

$$= b(x^2 - 25x - 3x + 75)$$

$$= b(x^2 - 28x + 75)$$

$$= bx^2 - 28bx + 75b$$

-3, -25

$$30. \frac{5x^2}{5} - \frac{5x}{5} - \frac{10}{5}$$

$$= 5(x^2 - x - 2)$$

$$= 5(x+1)(x-2)$$

$$= 5(x^2 - 2x + x - 2)$$

$$= 5(x^2 - x - 2)$$

$$5x^2 - 5x = 10$$

$$\begin{array}{|c|} \hline x-2 \\ \hline + \quad -1 \\ \hline 1, 2 \end{array}$$

$$\begin{aligned}
 43) \quad & z^2 - 20z + 100 \quad \times \begin{matrix} (100) \\ (-20) \\ -10, -10 \end{matrix} \\
 & = (z - 10)(z - 10) \\
 & = z^2 - 10z - 10z + 100 \\
 & = z^2 - 20z + 100
 \end{aligned}$$

45) $x^2 - 4x - 4$ XE4)

Not poss. ~~HF~~

$\rightarrow 2$

Homework

finish box 3

hand out 4-10