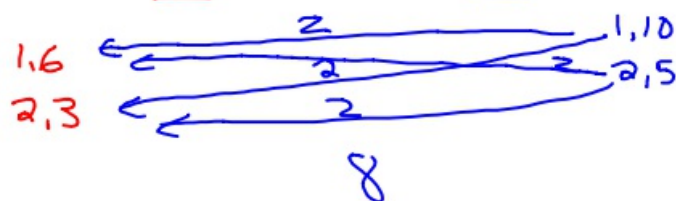


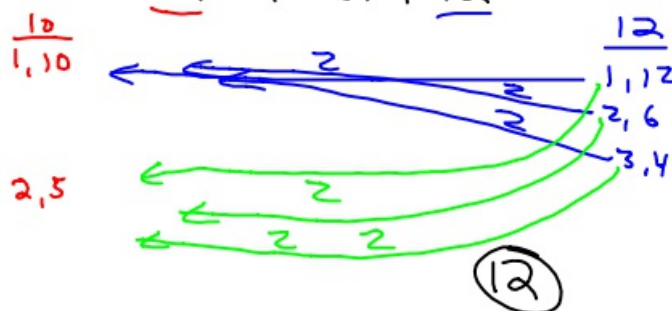
9-27-17 1st Trig

How many possible combinations exist for factoring

$$\underline{6}x^2 + 61x + \underline{10}$$



$$\underline{10}x^2 + 26x + \underline{12}$$



..

③ Simplify $\frac{n^2 - n - 12}{n^2 - 3n - 4}$

$$\frac{(n-4)(n+3)}{(n-4)(n+1)}$$

$$\frac{n+3}{n+1} [n \neq 4]$$

④ Factor $8x^3 - 343$

$$(2x - 7) \overset{S}{\underset{O}{4}}x^2 \overset{F}{+} 14x \overset{A}{+} 49 \overset{S}{}$$

⑤ Factor $8n^3y^5 - 10ny^6$

$$2ny^5(4n^2 - 5y)$$

⑥ Factor $(x^3 + 3x) + (5x^2 + 15)$

$$x \underline{(x^2 + 3)} + 5 \underline{(x^2 + 3)}$$

$$(x^2 + 3)(x + 5)$$

⑦ Factor $(5b^3 - 10b^2) + (b + 2)$

$$5b^2(b - 2) + -1(b - 2)$$

$$(b - 2)(5b^2 - 1)$$

⑧ Factor $x^2 + 7x - 30$

$$(x - 3)(x + 10)$$

$$\begin{array}{r} 30 \\ \hline 1, 30 \\ 2, 15 \\ -3, 10 \\ \hline 5, 6 \end{array}$$

⑨ Factor $x^2 - 9$

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

$$\begin{array}{r} 9 \\ \hline 1, 9 \\ 3, 3 \end{array}$$

⑩ $x + 3 \overline{) x^2 + 5x + 2}$

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

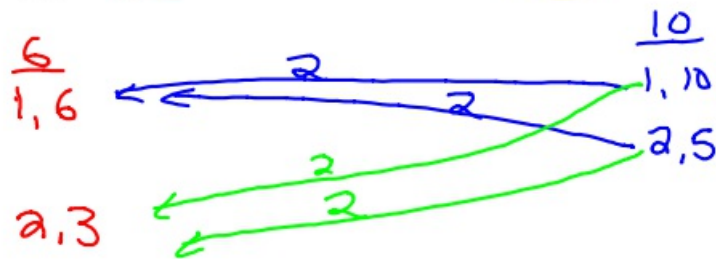
$$\begin{array}{r} 2x + 2 \\ - (2x + 6) \\ \hline -4 \end{array}$$

9-27-17 1st Trig

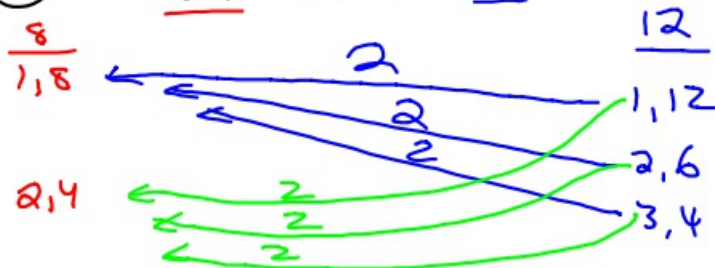
Ch. 2 Review

How many possibilities exist if factoring?

① $\underline{6}x^2 + 61x + \underline{10}$ (8)



② $\underline{8}x^2 + 35x + \underline{12}$



(12)

③
$$\begin{array}{r} x + 9 + \frac{26}{x-3} \\ x-3 \overline{) x^2 + 6x - 1} \\ \underline{-(x^2 - 3x)} \\ 9x - 1 \\ \underline{-(9x - 27)} \\ 26 \end{array}$$

④ Factor $x^3 - 27y^3$

$$(x - 3y) \overset{S}{(x^2 + 3xy + 9y^2)} \overset{O}{+} \overset{F}{3xy} \overset{A}{+} \overset{S}{9y^2}$$

⑤ $6x^3y^2 - 9xy^4$

$$3xy^2(2x^2 - 3y^2)$$

⑥ $(5b^3 - b) + (10b^2 + 2)$

$$b(5b^2 - 1) + -2(5b^2 - 1)$$

$$(5b^2 - 1)(b - 2)$$

⑦ Simplify $\frac{n^2 + n - 12}{n^2 - 16}$

$$\frac{(n-3)\cancel{(n+4)}}{(n-4)\cancel{(n+4)}}$$

$$\frac{n-3}{n-4} \quad [n \neq -4]$$

⑧ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$