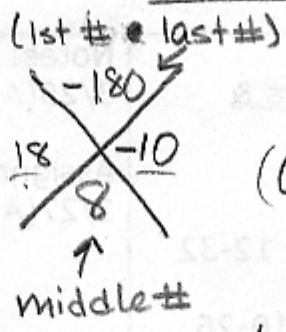


X-method for Factoring

34



$$6x^2 + 8x - 30$$

↓ ↓ ↓

$$(6x^2 + 18x) + (10x - 30) \rightarrow \text{Split the middle}$$

$$6x(x+3) - 10(x+3)$$

factor by grouping

$$\boxed{(x+3)(6x-10)}$$

Example 2

$$6x^2 + 5x - 25$$



$$6x^2 + 5x - 25$$

↓ ↓ ↓ ↓

$$6x^2 + 15x - 10x - 25$$

$$(6x^2 + 15x) + (-10x - 25)$$

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

$$\boxed{(2x+5)(3x-5)}$$

① multiply 1st & last #s
put in top of X:

② Put middle # in bottom
of X.

③ Find 2 #s when
• multiplied = top
• added = bottom
Put in sides of X

④ Use the two side #s to
split the middle term.

⑤ Factor by grouping