

$$(-3x+4)$$

$$-1(3x-4)$$

<p>Split the middle term</p> <p>$ax^2 + bx + c$</p> <p>1st multiply a and c together.</p> <p>2nd find numbers that multiply to get the product from above that add to get b.</p> <p>3rd replace (or split) the middle term with the 2 numbers from step 2.</p> <p>4th Group the first 2 terms together and group the second terms together</p> <p>5th Find the GCF of each set of Parenthesis</p> <p>6th Write as a product of linear factors</p>	<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p style="text-align: center;">$4 \cdot 2 = 8$</p> <p>$4x^2 + 9x + 2$ $(8 \cdot 1)$</p> <p>$(4x^2 + 8x) + (x + 2)$</p> <p>$4x(x+2) + 1(x+2)$</p> <p>$(4x+1)(x+2)$</p> </div> <div style="width: 45%;"> <p style="text-align: center;">$6 \cdot 4 = 24$</p> <p>$6x^2 - 11x + 4$ $(-8 \cdot -3)$</p> <p>$(6x^2 - 8x)(-3x + 4)$</p> <p>$2x(3x-4) - 1(3x-4)$</p> <p>$(2x-1)(3x-4)$</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="width: 45%;"> <p style="text-align: center;">$9 \cdot 4 = 36$</p> <p>$9x^2 + 12x + 4$ $6 \cdot 6$</p> <p>$(9x^2 + 6x) + (6x + 4)$</p> <p>$3x(3x+2) + 2(3x+2)$</p> <p>$(3x+2)(3x+2)$</p> <p style="text-align: center;">$(3x+2)^2$</p> </div> <div style="width: 45%;"> <p style="text-align: center;">$12 \cdot 7 = 84$</p> <p>$12x^2 - 25x + 7$ $-4 \cdot -21$</p> <p>$(12x^2 - 4x)(-21x + 7)$</p> <p>$4x(3x-1) - 7(3x-1)$</p> <p>$(4x-7)(3x-1)$</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="width: 45%;"> <p>$4x^2 - 4x - 35$ $4 \cdot -35 = -140$</p> <p>$(4x^2 - 14x) + (10x - 35)$ $-14 \cdot 10$</p> <p>$2x(2x-7) + 5(2x-7)$</p> <p>$(2x+5)(2x-7)$</p> </div> <div style="width: 45%;"> <p>$6x^2 + 13x - 25$ $6 \cdot -25 = -150$</p> <p>Does not Factor</p> <p>$15 \cdot -10$</p> <p>$25 \cdot -6$</p> <p>$30 \cdot -5$</p> <p>$75 \cdot -2$</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="width: 45%;"> <p>$10x^2 + 3x - 4$</p> </div> <div style="width: 45%;"> <p>$25x^2 - 10x + 4$</p> </div> </div>
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