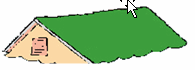
Roof-top Factoring



6x2 - 11x - 10

|  |  |
| --- | --- |
| * 1. Factor out any GCF (Greatest Common Factor) | |
| * 1. (6 )(6 ) | * 2. Put the first number in front of both parentheses. |
| * 2. (6x )(6x ) | * 3. Break down squared variable and put it in "front" or "back" as it should be. |
| * 3. (6)(-10) = -60  |  |  | | --- | --- | | 1 | -60 | | 2 | -30 | | 3 | -20 | | 4 | -15 | | 5 | -12 | | 6 | -10 | | * 4. Multiply first and third numbers (rooftop) and list all factors of product. * 5. If product is positive, find factors that add to middle term.            If product is negative, find            factors that subtract to middle           term. |
| 5.  (6x+4)(6x-15) | * 6. Put these factors in back of each            set of parentheses. |
| 6. | * 7. Since 6 X 6 = 36 and our first number is 6, these are not the final answers. If there is a **GCF** for the terms in parentheses, divide by the **GCF**. |
| 7.  (3x + 2)(2x - 5) | * 8. Check by multiplying first and last terms to see if the answer is correct. |
| (3)(2) = 6  | (2)(-5) = -10  |