

Rewrite $9r$ as $6r + 3r$, as $6 \cdot 3 = 18$, and $6 + 3 = 9$. Then factor by grouping to get:

$$(r + 3)(2r + 3) = 0$$

$$r + 3 = 0 \text{ or } 2r + 3 = 0$$

$$r = -3 \text{ or } 2r = -3$$

$$r = -3 \text{ or } r = \frac{-3}{2}$$