

Simplify and solve the following linear equations.

**9.**  $3(5z - 7) - 2(9z - 11) = 4(8z - 13) - 17$

**10.**  $0.25(4f - 3) = 0.05(10f - 9)$

3.  $x+7-\frac{8x}{3}=\frac{17}{6}-\frac{5x}{2}$

8.  $\frac{2x}{3} + 1 = \frac{7x}{15} + 3$

**Example 10:** Simplify  $(a + b)(2a - 3b + c) - (2a - 3b)c$ .

2. Find the product.

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

$$(iv) \quad (p^2 - q^2)(2p + q)$$

$$\text{(iv)} \quad (-3)^4 \times \left(\frac{5}{3}\right)^4$$



7. Simplify.

$$(i) \quad \frac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}} \quad (t \neq 0)$$



4. A machine in a soft drink factory fills 840 bottles in six hours. How many bottles will it fill in five hours?

**Example 8:** There are 100 students in a hostel. Food provision for them is for 20 days. How long will these provisions last, if 25 more students join the group?