Exercise 42

In the following exercises, simplify the following expressions by combining like terms.

$$5b^2 + 9b + 10 + 2b^2 + 3b - 4$$

Solution

Group the terms with b^2 together, group the terms with b together, and group the terms without b together.

$$5b^{2} + 9b + 10 + 2b^{2} + 3b - 4 = (5b^{2} + 2b^{2}) + (9b + 3b) + (10 - 4)$$
$$= 7b^{2} + 12b + 6$$