

Grade 7 Algebra – Monomial Word Problems
Ontario Curriculum Aligned

1. A student buys 4 packs of pencils. Each pack has x pencils. Then the student buys 6 more pencils.
Write an algebraic expression for the total number of pencils.
2. A bookshelf holds 7 books per shelf. There are n shelves, and 5 more books are placed on top.
Write an expression showing the total number of books.
3. A video game gives a player 10 points per level. If the player completes k levels and earns 20 bonus points,
write an expression for the total score.
4. A teacher orders m boxes of markers. Each box contains 12 markers, but 4 markers are missing.
Write an expression for the total number of markers.
5. A baker places b muffins into boxes holding 6 muffins each. Then 8 extra muffins are added.
Write and simplify an expression for the total number of muffins.
6. A sports team practices for t weeks. Each week includes 5 practice sessions, and 3 extra sessions are added.
Write an expression for the total number of practices.
7. A gardener plants 9 flowers in each row. There are r rows, but 6 flowers wilt.
Write an expression for the number of healthy flowers.
8. A factory produces p toy cars and packs them equally into 4 boxes. Then 12 more toy cars are added.
Write and simplify an expression for the total number of toy cars.
9. A library has s shelves with 8 books per shelf, adds 15 donated books, and then removes 5 damaged books.
Write and simplify an expression for the total number of books.
10. A student earns 3 points per correct answer on a quiz with q correct answers, earns 20 bonus points,
and loses 5 points for a mistake. Write and simplify the final score expression.
11. A farmer plants 6 trees in each of f fields, plants 10 extra trees near the barn,
and removes 4 trees that did not grow. Write and simplify an expression.
12. A school fundraiser sells d boxes of cookies with 12 cookies per box. They give away 18 cookies as samples
and then pack the remaining cookies into 3 equal groups.
Write and simplify an expression for the number of cookies in each group.