

Boost Free Lessons - Year 8 Maths

Lesson 5: Multiplying Terms

Name: _____ Grade: _____ Date: _____

Worked Example 1

Simplify $3a \times 4b$

1. Deal with the numbers first: $3 \times 4 = 12$.
2. Then multiply the letters: $a \times b = ab$.
3. Write the letters in alphabetical order.

= $12ab$

Worked Example 2

Simplify $-4p \times 3p$

1. Multiply the numbers, watching the signs: $-4 \times 3 = -12$.
2. Multiply the letters: $p \times p = p^2$.
3. A negative times a positive gives a negative.

= $-12p^2$

Remember: Multiply the numbers first, then the letters. When a bracket is raised to a power, everything inside it is raised to that power: $(2m)^2 = 2^2 \times m^2$.



Question 1: Simplify the following.

1. $2a \times 5b$

2. $3m \times 4m$

3. $6x \times y$

4. $4p \times 3q$

5. $7k \times 2k$

6. $-3c \times 5d$

7. $2x \times 3y \times 4$

8. $-6t \times -2t$

9. $5w \times w$

10. $8a \times 3bc$



Question 2: Simplify the following.

1. $3x^2 \times 2x$

2. $4a \times 5a^2$

3. $(2m)^2$

4. $-5p \times 2p^2$

5. $3ab \times 4a$

6. $6xy \times 2y$

7. $(3k)^3$

8. $2a^2b \times 5ab^3$



Question 3: Answer the following questions.

1. A rectangle has length $4x$ and width $3y$. Write an expression for its area.
2. A square has a side length of $5m$. Write an expression for its area.
3. A rectangular prism measures $2a$ by $3b$ by $4c$. Write an expression for its volume.
4. A triangle has base $6x$ and height $4x$. Write an expression for its area.
5. Simplify $2a \times 3b \times 4a$.



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Answers: Multiplying Terms**Question 1**

- | | |
|------------|-------------|
| 1. $10ab$ | 6. $-15cd$ |
| 2. $12m^2$ | 7. $24xy$ |
| 3. $6xy$ | 8. $12t^2$ |
| 4. $12pq$ | 9. $5w^2$ |
| 5. $14k^2$ | 10. $24abc$ |

Question 2

- | | |
|-------------|---------------|
| 1. $6x^3$ | 5. $12a^2b$ |
| 2. $20a^3$ | 6. $12xy^2$ |
| 3. $4m^2$ | 7. $27k^3$ |
| 4. $-10p^3$ | 8. $10a^3b^4$ |

Question 3

1. $12xy$
2. $25m^2$
3. $24abc$
4. $12x^2$
5. $24a^2b$

