



**THIRD SPACE
LEARNING**

Expanding Expressions Worksheet

Algebra

Grades 6 to 8

Skill Questions

Name:

Date:

1 Expand the expression $2(a + 3b)$.

Answer

2 Expand the expression $3(x - 4)$.

Answer

3 What is the result of expanding $4(2c + 5)$?

Answer

4 Expand the expression $5(3 - 2d)$.

Answer

5 What is the expanded form of $6(2p - 3q)$?

Answer

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6 Expand the expression $7(4m + 2n)$.

Answer

7 If $a = 2$ and $b = 3$, what is the result of expanding $2(a + b)$?

Answer

8 Expand the expression $3(2x + 7)$.

Answer

9 What is the expanded form of $4(5 - 3y)$?

Answer

10 If $c = 4$ and $d = 2$, what is the result of expanding $5(c - d)$?

Answer

Applied Questions

- 11** Lily has a rectangular garden with a length represented by $4a + 3$ meters and a width given by $2a - 1$ meters. Write an expression for the total area of Lily's garden using the distributive property.

Answer



- 12** Emma is creating a rectangular mural with a length represented by $3b + 1$ meters and a width given by $2b + 2$ meters. Express the area of the mural using the distributive property.

Answer



- 13** John has a rectangular pool with a length given by $4e + 2$ meters and a width represented by $3e - 1$ meters. Express the area of John's pool using the distributive property.

Answer



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- 14** Sophia is organizing a school event and needs to calculate the total cost. The cost per ticket is given by $15h + 10$ dollars, and she expects to sell $4h - 2$ tickets. Write an expression to represent the total cost for the event using the distributive property.

Answer

- 15** Tom is filling his aquarium with different types of fish. The cost of each goldfish is $5x - 2$ dollars, and he plans to buy $3x + 4$ goldfish. Write an expression to represent the total cost of purchasing the goldfish using the distributive property.

Answer

Answers

Question number	Question	Answers	Standard
1	Expand the expression $2(a + 3b)$.	$2a + 6b$	6.EE.A.3
2	Expand the expression $3(x - 4)$.	$3x - 12$	6.EE.A.3
3	What is the result of expanding $4(2c + 5)$?	$8c + 20$	6.EE.A.3
4	Expand the expression $5(3 - 2d)$.	$15 - 10d$	6.EE.A.3
5	What is the expanded form of $6(2p - 3q)$?	$12p - 18q$	6.EE.A.3
6	Expand the expression $7(4m + 2n)$.	$28m + 14n$	6.EE.A.3
7	If $a = 2$ and $b = 3$, what is the result of expanding $2(a + b)$?	10	6.EE.A.3
8	Expand the expression $3(2x + 7)$.	$6x + 21$	6.EE.A.3
9	What is the expanded form of $4(5 - 3y)$?	$20 - 12y$	6.EE.A.3
10	If $c = 4$ and $d = 2$, what is the result of expanding $5(c - d)$?	10	6.EE.A.3
11	Lily has a rectangular garden with a length represented by $4a + 3$ meters and a width given by $2a - 1$ meters. Write an expression for the total area of Lily's garden using the distributive property.	$A = 8a^2 + 2a - 3$	6.EE.A.3

Expanding Expressions Worksheet | Grades 6 to 8 | Answers




Question number	Question	Answers	Standard
12	Emma is creating a rectangular mural with a length represented by $3b + 1$ meters and a width given by $2b + 2$ meters. Express the area of the mural using the distributive property.	$A = 6b^2 + 8b + 2$	6.EE.A.3
13	John has a rectangular pool with a length given by $4e + 2$ meters and a width represented by $3e - 1$ meters. Express the area of John's pool using the distributive property.	$A = 12e^2 + 2e - 2$	6.EE.A.3
14	Sophia is organizing a school event and needs to calculate the total cost. The cost per ticket is given by $15h + 10$ dollars, and she expects to sell $4h - 2$ tickets. Write an expression to represent the total cost for the event using the distributive property.	Total Cost = $60h^2 + 10h - 20$	6.EE.A.3
15	Tom is filling his aquarium with different types of fish. The cost of each goldfish is $5x - 2$ dollars, and he plans to buy $3x + 4$ goldfish. Write an expression to represent the total cost of purchasing the goldfish using the distributive property.	Total Cost = $15x^2 + 14x - 8$	6.EE.A.3

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