

Expanding Expressions Worksheet

Algebra

Grades 6 to 8

Skill Questions

Name:

Date:

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



2 Expand the expression 3(x-4).



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



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



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



Expanding	Expressions	Worksheet	Grades 6 to	8
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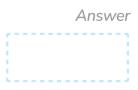
6 Expand the expression 7(4m + 2n).

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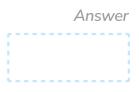
7 If a=2 and b=3, what is the result of expanding 2(a+b)?



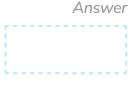
8 Expand the expression 3(2x+7).



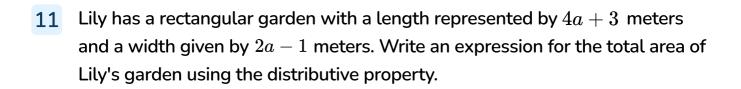
9 What is the expanded form of 4(5-3y)?



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



Applied Questions



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.



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

Expanding Expressions Worksheet | Grades 6 to 8

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

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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.

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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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