Evaluate expressions — Answers within 50

Name: _____ Date: _____

Put the number in place of the letter, then work each one out.

1. $x = 5$ $3x =$ 15

   3x with x = 5
   3 × 5 = 15
   3x = 15

2. $x = 10$ $4x - 4 =$ ___

3. $x = 8$ $3x + 11 =$ ___

4. $x = 3$ $11x =$ ___

5. $a = 10, b = 12$ $2a + b =$ ___

6. $a = 3, b = 10$ $6a + b =$ ___

7. $x = 2$ $x^2 + 3 =$ ___

8. $x = 3$ $x^2 + 19 =$ ___

9. $x = 5$ $7x - 11 =$ ___

10. $x = 3$ $8x + 20 =$ ___

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Collect the like terms.

1. $10x + 11 - 7x - 4$

   $10 - 7 = 3$
   $11 - 4 = 7$
   $3x + 7$

2. $9 + 3x + 4 + 9x$

3. $11x + 8 - 9x$

4. $2x + 9x + 3$

5. $9 + 3x + 7 + 9x$

6. $12x + 8 - 10x$

7. $8x + 13 - 4x$

8. $6x + 3x + 8$

9. $8 + 3x + 9 + 3x$

10. $11x + 17 - x - 15$

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Multiply out each bracket.

1. $7(7 + 5x)$

   $7 \times 7 = 49$

   $7 \times 5x = 35x$

   $35x + 49$

2. $4(9x - 9)$

3. $2(6 + 5x)$

4. $2(x + 7)$

5. $3(10 + 3x)$

6. $3(x - 2)$

7. $4(8x + 2)$

8. $4(9x - 12)$

9. $2(11 + x)$

10. $3(5x + 3)$

Absolute value — Numbers within 20

Name: _____ Date: _____

Work out each one. The bars ask how far the number is from zero.

1. How far apart are −7 and 6 on the number line? 13

2. $|3 - 19| =$ ___

3. How far apart are −3 and 1 on the number line? ___

4. $|-11| =$ ___

5. $|10| + |-2| =$ ___

6. $|-20| =$ ___

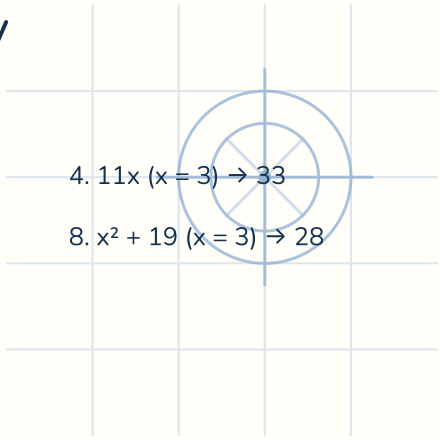
7. $|6 - 11| =$ ___

8. $|-7| + |8| =$ ___

9. $|4 - 17| =$ ___

10. $|-8| + |3| =$ ___

Power Pack · Algebraic expressions — Answer key



Evaluate

1. 3x (x = 5) → 15
2. 4x – 4 (x = 10) → 36
3. 3x + 11 (x = 8) → 35
4. 11x (x = 3) → 33
5. 2a + b (a = 10, b = 12) → 32
6. 6a + b (a = 3, b = 10) → 28
7. x^2 + 3 (x = 2) → 7
8. x^2 + 19 (x = 3) → 28
9. 7x – 11 (x = 5) → 24
10. 8x + 20 (x = 3) → 44

Like terms

1. 10x + 11 – 7x – 4 → 3x + 7
2. 9 + 3x + 4 + 9x → 12x + 13
3. 11x + 8 – 9x → 2x + 8
4. 2x + 9x + 3 → 11x + 3
5. 9 + 3x + 7 + 9x → 12x + 16
6. 12x + 8 – 10x → 2x + 8
7. 8x + 13 – 4x → 4x + 13
8. 6x + 3x + 8 → 9x + 8
9. 8 + 3x + 9 + 3x → 6x + 17
10. 11x + 17 – x – 15 → 10x + 2

Brackets

1. 7(7 + 5x) → 35x + 49
2. 4(9x – 9) → 36x – 36
3. 2(6 + 5x) → 10x + 12
4. 2(x + 7) → 2x + 14
5. 3(10 + 3x) → 9x + 30
6. 3(x – 2) → 3x – 6
7. 4(8x + 2) → 32x + 8
8. 4(9x – 12) → 36x – 48
9. 2(11 + x) → 2x + 22
10. 3(5x + 3) → 15x + 9

Absolute value

1. How far apart are –7 and 6 on the number line? → 13
2. |3 – 19| → 16
3. How far apart are –3 and 1 on the number line? → 4
4. |–11| → 11
5. |10| + |–2| → 12
6. |–20| → 20
7. |6 – 11| → 5
8. |–7| + |8| → 15
9. |4 – 17| → 13
10. |–8| + |3| → 11