THIRD SPACE LEARNING

Square Roots Worksheet

Algebra

Grades 6 to 8

Skill Questions

Name: .....

Date: .....

1 Simplify:

$$\sqrt{121}$$

Answer

2 Simplify:

$$\sqrt{8}$$

Answer

3 Simplify:

$$\sqrt{32}$$

Answer

4 Simplify:

$$\sqrt{27}$$

Answer

5 Simplify:

$$\sqrt{24}$$

Answer

6 Simplify:

$$\sqrt{108}$$

Answer

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7 Simplify:

$$\sqrt{4a^2}$$

Answer

---

8 Simplify:

$$\sqrt{49x^3}$$

Answer

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9 Simplify:

$$\sqrt{50a^4}$$

Answer

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10 Simplfy:

$$\sqrt{80a^2}b^5$$

Answer

Applied Questions

11 Julie thinks that $\sqrt{16}$ = 8 . Andrew thinks that.$\sqrt{16}$ =4, who is correct? Explain.

Answer

12 The area of a square is 81 cm^2 . Find the side length of the square.

Answer

13 The area of a square is 128 in^2. Find the side length of the square.

Answer

14 If the area of a square is $121\,m^2$. Find the perimeter of the square.

Answer

15 If the area of a square is $49a^4\ units^2$, write an expression representing the perimeter of the square.

Answer

Answers

Question number	Question	Answers	Standard
1	Simplify: $\sqrt{121}$	11	8.EE.A.2
2	Simplify: $\sqrt{8}$	$2\sqrt{2}$	8.EE.A.2
3	Simplify: $\sqrt{32}$	$4\sqrt{2}$	8.EE.A.2
4	Simplify: $\sqrt{27}$	$3\sqrt{3}$	8.EE.A.2
5	Simplify: $\sqrt{24}$	$2\sqrt{6}$	8.EE.A.2
6	Simplify: $\sqrt{108}$	$6\sqrt{3}$	8.EE.A.2
7	Simplify: $\sqrt{4a^2}$	$2a$	8.EE.A.2
8	Simplify: $\sqrt{49x^3}$	$7x\sqrt{x}$	8.EE.A.2
9	Simplify: $\sqrt{50a^4}$	$5a^2\sqrt{2}$	8.EE.A.2
10	Simplfy: $\sqrt{80a^2b^5}$	$4ab^2\sqrt{5b}$	8.EE.A.2

Question number	Question	Answers	Standard
11	Julie thinks that $\sqrt{16}$ = 8 . Andrew thinks that. $\sqrt{16}$ = 4, who is correct? Explain.	Andrew is correct because square root means that a number, when multiplied by itself, gives the original number. So, $\sqrt{16}$=4 because 4 x 4 = 16.	8.EE.A.2
12	The area of a square is 81 cm^2. Find the side length of the square.	$\sqrt{81}$=9 The side length of the square is 9 cm.	8.EE.A.2
13	The area of a square is 128 in^2. Find the side length of the square.	$\sqrt{128} = 8\sqrt{2}$ The side length of the square is $8\sqrt{2}$ inches	8.EE.A.2
14	If the area of a square is 121 m^2. Find the perimeter of the square.	$\sqrt{121}$ =11 The side length of the square is 11. The perimeter is 11 + 11 + 11 + 11 = 44 OR 4 x 11 = 44 m	8.EE.A.2
15	If the area of a square is $49a^4$ $units^2$, write an expression representing the perimeter of the square.	$\sqrt{49a^4} = 7a^2$ Perimeter = 4 x $7a^2$ Perimeter = $28a^2$ units	8.EE.A.2

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