


# What Did the Boy Snake Say to the Girl Snake?

Write the letter of the correct answer in the box containing the exercise number. If the answer has a , shade in the box instead of writing a letter in it.

Solve by finding square roots. Express irrational solutions using radicals.

- ①  $x^2 = 64$       ②  $\pi^2 = 83$       ③  $7c^2 = 91$   
 ④  $3w^2 = 588$       ⑤  $y^2 - 121 = 0$       ⑥  $4a^2 - 9 = 35$   
 ⑦  $5x^2 + 12 = 87$       ⑧  $8t^2 - 82 = -10$       ⑨  $8t^2 - 10 = -82$   
 ⑩ A square field has an area of 1024 ft<sup>2</sup>. Find the length of a side.

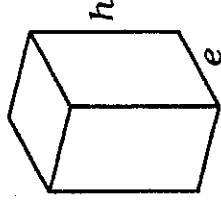
Solve by finding square roots. Express irrational solutions as decimals rounded to the nearest tenth. In Exercises 20–21, use 3.14 for  $\pi$ .

- ⑪  $3k^2 + 4 = 64$       ⑫  $5 + 16b^2 = 117$       ⑬  $70 - 2m^2 = 0$   
 ⑭  $\frac{x^2}{4} - 15 = 8$       ⑮  $10 + \frac{a^2}{9} = 26$       ⑯  $11 - \frac{1}{2}y^2 = -4$   
 ⑰  $5d^2 + 2 = 3.8$       ⑱  $49x^2 = 16$       ⑲  $81t^2 - 100 = -99$

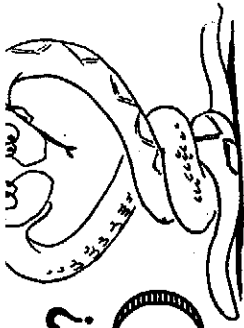
- ⑳ Roundup Elementary School wants a large circle painted on the playground. The painter has a gallon can that will cover 400 ft<sup>2</sup>. Find the radius of the largest circle he can paint. (Use  $A = \pi r^2$ )

- ㉑ Atlas Globe Co. wants to produce a globe with a surface area of 900 in.<sup>2</sup>. The surface area is given by the formula  $A = 4\pi r^2$ , where  $r$  is the radius of the sphere. What should the radius be?

- ㉒ Suppose you are designing a juice carton in the shape of a square prism. The volume is given by the formula  $V = e^2h$ , where  $e$  is the length of an edge of the base and  $h$  is the height. You want the volume to be 1000 cm<sup>3</sup> and the height to be 16 cm. How long should an edge of the base be?



10	14	5	12	16	21	3	11	8	4	6	17	15	19	1	13	20	9	22	7	2	18
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Answers 1-10

Ⓐ  $\pm\sqrt{13}$

Ⓑ  $\pm 8$

Ⓒ  $\pm 11$

Ⓓ 32 ft

Ⓔ  $\pm\sqrt{15}$

Ⓕ  $\pm 14$

Ⓖ 28 ft

Ⓗ  $\pm\sqrt{83}$

Ⓙ  $\pm 3$

ⓐ  $\pm\sqrt{11}$

Ⓡ  $\pm\sqrt{10}$

Ⓢ no solution

Answers 11-22

Ⓜ 7.2 cm

Ⓒ  $\pm 5.9$

Ⓝ 9.2 in.

Ⓤ  $\pm \frac{1}{9}$

Ⓢ  $\pm 0.6$

ⓓ 7.9 cm

Ⓞ  $\pm 9.6$

Ⓚ 11.3 ft

Ⓢ  $\pm 2.6$

Ⓣ  $\pm 3.4$

Ⓐ  $\pm 5.5$

Ⓤ  $\pm 4.5$

ⓓ 12.5 ft

Ⓢ  $\pm \frac{4}{7}$

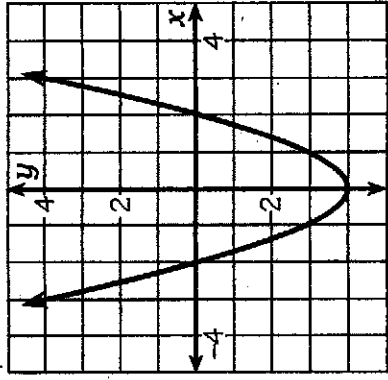
Ⓑ 8.5 in.

Ⓕ  $\pm 12$

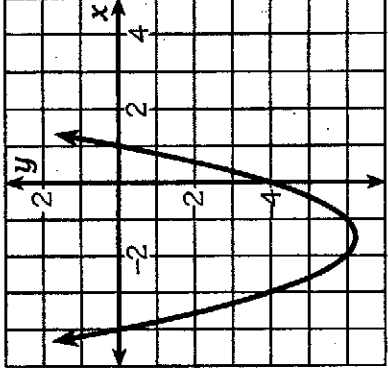
# Who Put the Periods in the Dr. Seuss Books?

Solve each equation using the graph of its related function. Cross out the box containing each solution. When you finish, write the remaining letters in the spaces at the bottom of the page.

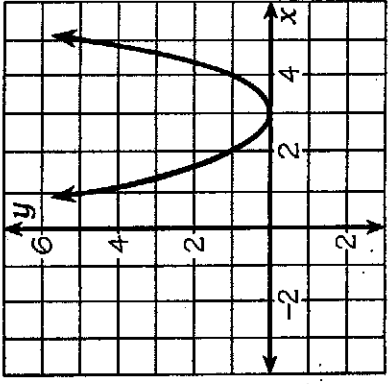
In Exercises 1-3, the graph of the related function is given.



1  $x^2 - 4 = 0$



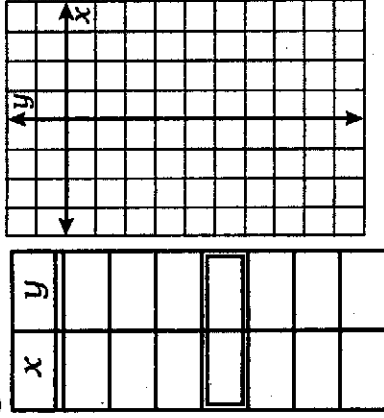
2  $x^2 + 3x - 4 = 0$



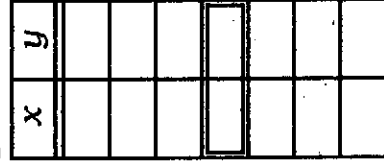
3  $x^2 - 6x + 9 = 0$

In Exercises 4-9, draw the graph of the related function. Write the coordinates of the vertex in the outlined cells of the table. Then find points on each side of the vertex.

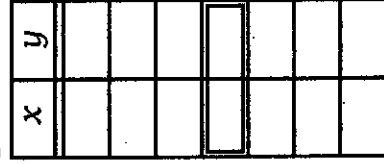
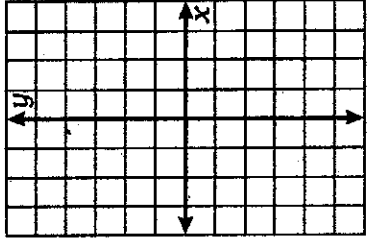
4  $x^2 - 9 = 0$



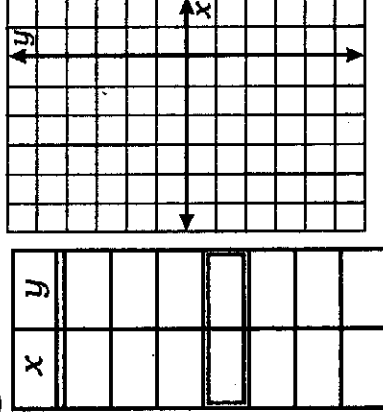
5  $x^2 + 2x - 3 = 0$



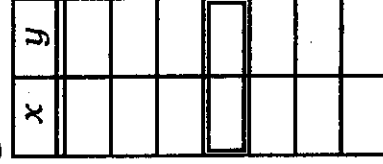
6  $x^2 - 4x + 5 = 0$



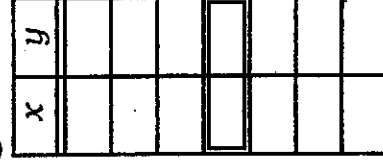
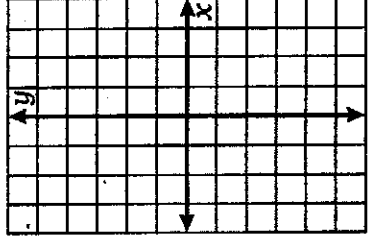
7  $x^2 + 6x + 5 = 0$



8  $x^2 - x - 2 = 0$



9  $-x^2 - 4x - 4 = 0$



HE	AT	HI	RE	SD	AY	PL	OT	AN	UP	TE	AM	RS	ON
-1, 2	-4, 1	-3, -5	no solution	-1, 3	-3, 1	-2	2	±2	±3	-2, 1	-5, -1	-4, 2	3