

5.2 Puzzle Time

Why Did The 25-Watt Bulb Flunk Out Of School?

Write the letter of each answer in the box containing the exercise number.

Simplify the expression.

1. $(8^2)^{1/3}$

2. $5^{3/4} \cdot 5^{1/2}$

3. $\left(\frac{64}{125}\right)^{1/3}$

4. $(2^4 \cdot 6^4)^{-1/4}$

5. $(3^{2/3} \cdot 5^{1/4})^6$

6. $\frac{4}{4^{1/2}}$

7. $\sqrt[3]{27} \cdot \sqrt[3]{729}$

8. $\frac{\sqrt[4]{32}}{\sqrt[4]{256}}$

9. $\frac{\sqrt[3]{24} \cdot \sqrt[3]{12}}{\sqrt[3]{2}}$

10. $\frac{25^{1/6} \cdot 25^{1/3}}{5^{6/5}}$

11. $\frac{4}{8 - \sqrt{3}}$

12. $10\sqrt[4]{5} - 3\sqrt[4]{5}$

13. $12(4^{3/4}) + 5(4^{3/4})$

14. $\sqrt[5]{3^5}$

15. $(3^{2/5})^{1/2}$

16. $-3(2^{1/5}) - 2(2^{1/5})$

Answers

E. $5^{5/4}$

W. $\frac{4}{5}$

H. 4

A. $\frac{1}{12}$

N. 2

S. $81 \cdot 5^{3/2}$

H. $3^{1/5} 3^{1/5}$

T. $\left(\frac{1}{8}\right)^{1/4}$

S. $2\sqrt[3]{18}$

O. 27

O. $\frac{1}{5^{1/5}}$

R. $7\sqrt[4]{5}$

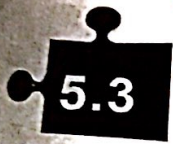
G. 3

I. $17(4^{3/4})$

T. $-5(2^{1/5})$

B. $\frac{32 + 4\sqrt{3}}{61}$

1	2		3	4	5		6	7	8		9	10		11	12	13	14	15	16
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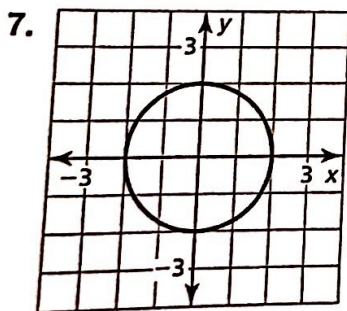
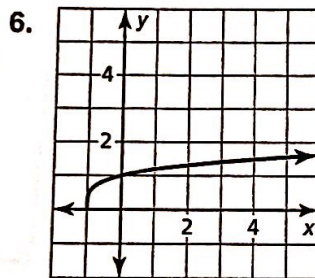
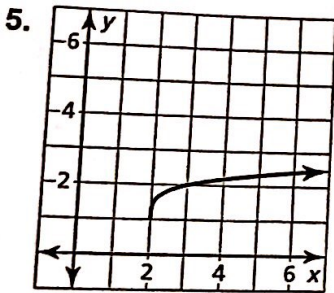
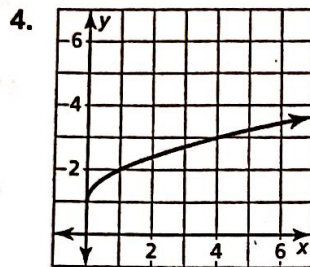
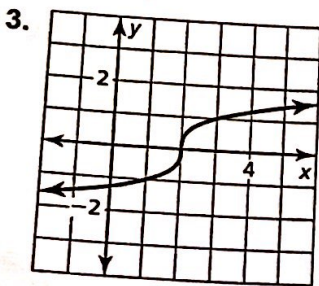
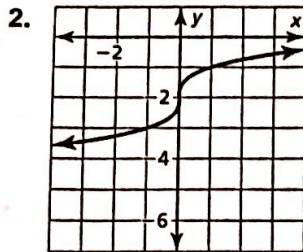
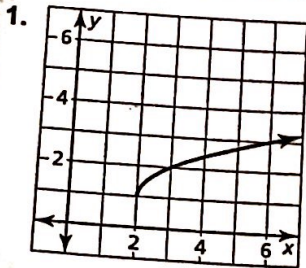


5.3 Puzzle Time

What Has Lots Of Eyes But Can't See?

Write the letter of each answer in the box containing the exercise number.

Match the graph with its function.



1		2	3	4	5	6	7
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Answers

O. $f(x) = \sqrt[3]{x-2}$

A. $f(x) = \sqrt{x-2} + 1$

T. $f(x) = x^{1/2} + 1$

A. $f(x) = \sqrt[4]{x-2} + 1$

O. $x^2 + y^2 = 4$

T. $f(x) = (x+1)^{1/4} - 2$

P. $f(x) = x^{1/3} - 2$

5.4 Puzzle Time

What Did The Cucumber Say To The Vinegar?

A	B	C	D	E	F
G	H	I	J		

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

$x = 14$ WELL
$x = 16$ US
$x = 32$ FINE
$x = 128$ A
$x = 4$ YOU'VE

Solve the equation.

A. $\sqrt{2x - 3} = 5$

B. $\sqrt[3]{x - 4} = -2$

C. $3\sqrt{2x} + 10 = 22$

D. $\frac{1}{4}\sqrt[3]{4x} - 1 = 1$

E. $2\sqrt[5]{x} + 6 = 10$

F. $(\sqrt{x - 27})^3 = 64$

G. $x = \sqrt{2x + 8}$

H. $\sqrt{5x - 3} = \sqrt{2x + 12}$

I. $\sqrt{x - 7} = 7 - \sqrt{x}$

J. $(x + 30)^{1/2} = x$

$x = 43$ PICKLE
$x = 6$ INTO
$x = 8$ IS
$x = -4$ THIS
$x = 5$ GOTTEN