

Graphing & Review

© 2014 Kuta Software LLC. All rights reserved.

Sketch the graph of each function.

1) $y = -1 - 2\sqrt{x-2}$

2) $y = 2\sqrt{x+3} - 3$

3) $y = 1 + 2\sqrt[3]{x+3}$

4) $y = 4\sqrt[3]{x+6} - 2$

5) $y = 3|x+4| - 3$

6) $y = 2|x-3| + 2$

7) $y = 3\sqrt{x-2} - 2$

8) $y = -2 + \sqrt{9x+27}$

Solve each equation. Remember to check for extraneous solutions.

9) $8 = \sqrt{6x+10}$

10) $r - 6 = \sqrt{20 - 2r}$

11) $19 = (m+5)^{\frac{4}{5}} + 3$

12) $(k-11)^{\frac{2}{3}} - 2 = 14$

Sketch the graph of each function.

13) $y = 2\sqrt{x+5} - 3$

14) $y = \sqrt{4x-8} + 1$

15) $y = \frac{1}{2}(x-4)^2 + 1$

16) $y = (x+3)^2 + 1$

17) $y = 2\sqrt[3]{x-3} + 2$

18) $y = -4\sqrt[3]{x-2} - 1$

19) $y = -2 + 2\sqrt[3]{x+2}$

20) $y = 2\sqrt[3]{x-3} - 2$

Simplify.

21) $-2\sqrt[3]{108x^8y^7}$

22) $3\sqrt{28x^2y^2}$

Simplify. Your answer should contain only positive exponents.

23) $xy^2 \cdot \left(yx^{-\frac{1}{3}}\right)^{-2}$

24) $\frac{b^3}{ab^4 \cdot 4a^2b^2}$

Write each expression in radical form.

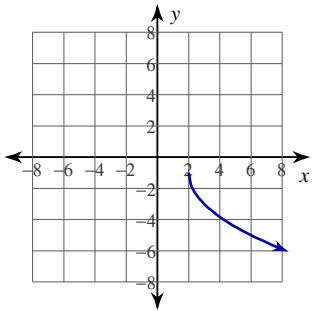
25) $(5n)^{\frac{5}{2}}$

Write each expression in exponential form.

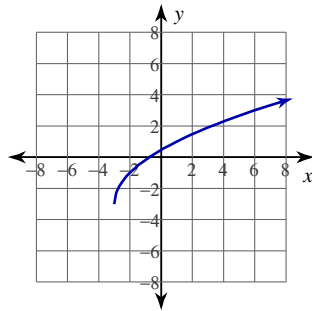
26) $(\sqrt[5]{a})^2$

Answers to Graphing & Review

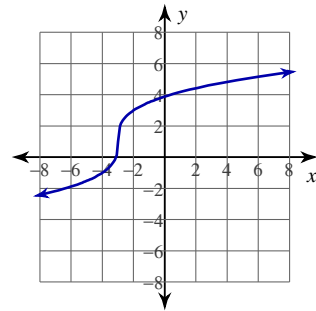
1)



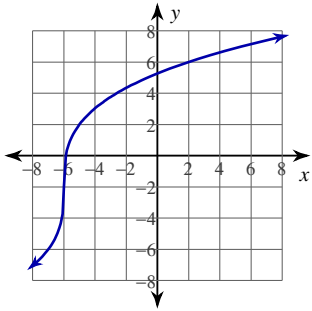
2)



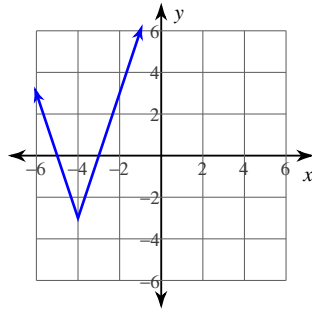
3)



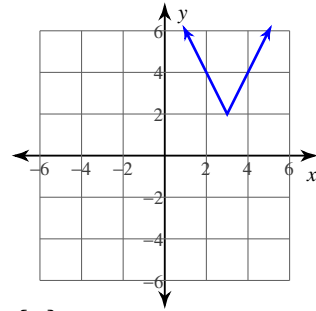
4)



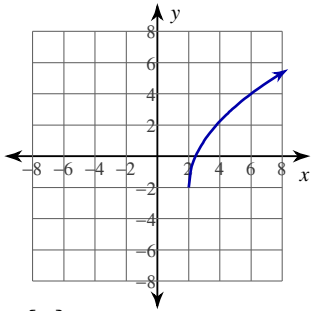
5)



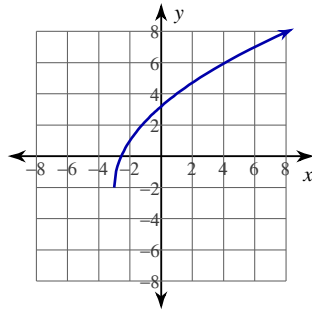
6)



7)



8)



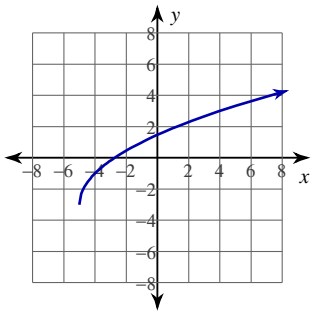
9) {9}

10) {8}

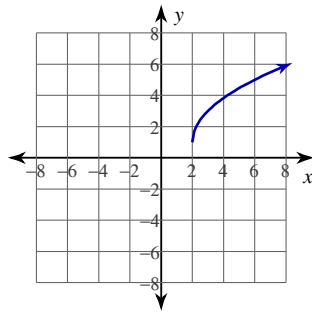
11) {27, -37}

12) {75, -53}

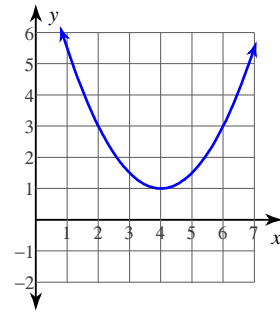
13)



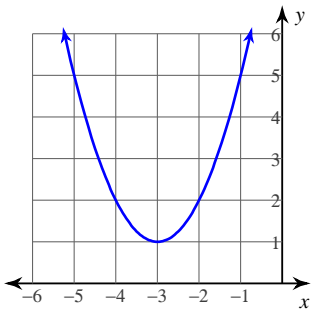
14)



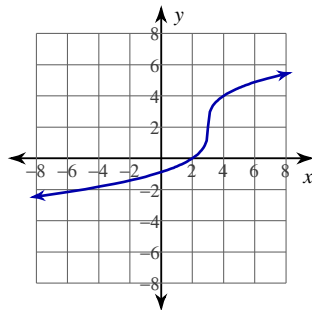
15)



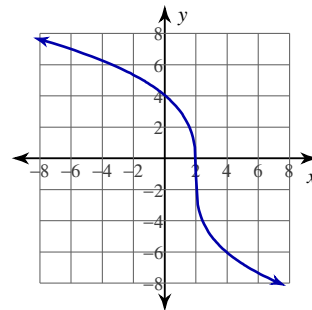
16)



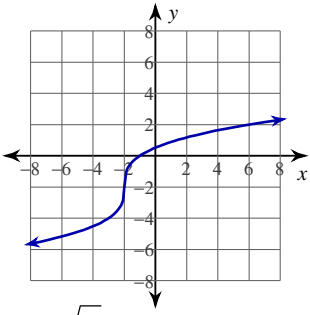
17)



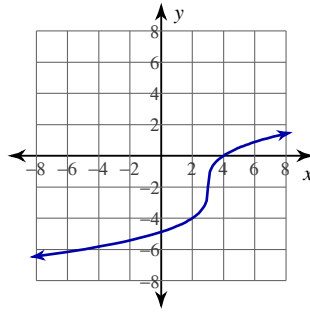
18)



19)



20)



21) $-6x^2y^2\sqrt[3]{4x^2y}$

22) $6xy\sqrt{7}$

23) $x^{\frac{5}{3}}$

24) $\frac{1}{4a^3b^3}$

25) $(\sqrt{5n})^5$

26) $a^{\frac{2}{5}}$