

Practice Test WKS #2

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Solve each equation. Remember to check for extraneous solutions.

1) $4 = \sqrt{26 - x}$

2) $\sqrt{12 - 2b} = \sqrt{4b}$

3) $x - 7 = \sqrt{14 - 2x}$

4) $\sqrt{3b - 21} - 5 = -2$

5) $-3 - \sqrt{6 - 2x} = \sqrt{2x + 3}$

6) $1 = \sqrt{\frac{x}{6}} - 1$

Simplify.

7) $3\sqrt{15}(4 - 4\sqrt{3})$

8) $2\sqrt{5}(4 + \sqrt{10})$

9) $\frac{2}{2 + \sqrt{3}}$

10) $\frac{4}{5\sqrt{5} - \sqrt{3}}$

11) $\frac{2}{\sqrt{2} + \sqrt{3}}$

12) $\frac{5}{3\sqrt{3} + \sqrt{5}}$

13) $\sqrt[5]{64b^8}$

14) $\sqrt[3]{448x^5}$

15) $\sqrt[4]{567n^7}$

16) $\sqrt[4]{128x^7}$

17) $\frac{\sqrt{3}}{2\sqrt{4}}$

18) $\frac{\sqrt{4}}{3\sqrt{36}}$

19) $\frac{3\sqrt{20}}{5\sqrt{36}}$

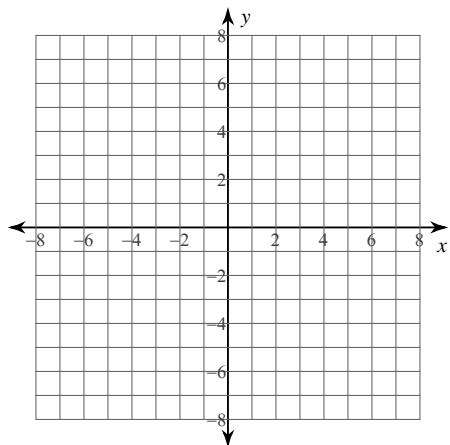
20) $\frac{\sqrt{15}}{\sqrt{20}}$

21) $2\sqrt{5} - \sqrt{3} - 2\sqrt{20}$

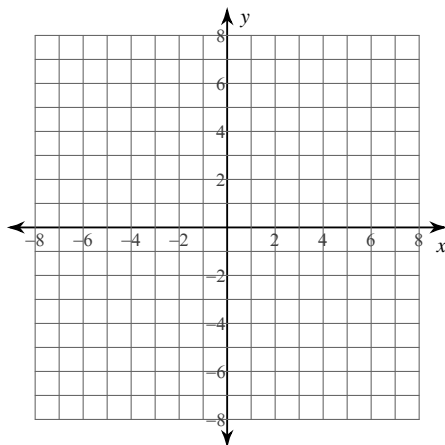
22) $-2\sqrt{2} - 3\sqrt{54} - 2\sqrt{18}$

Sketch the graph of each function.

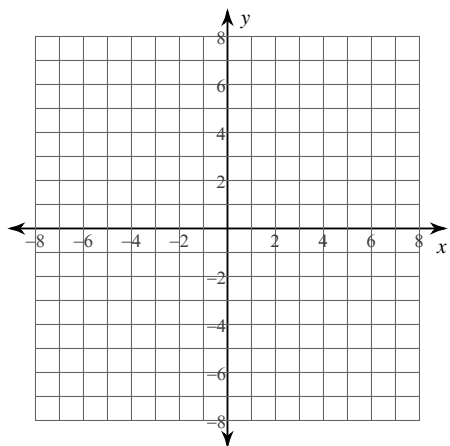
23) $y = \sqrt{x-2} + 1$



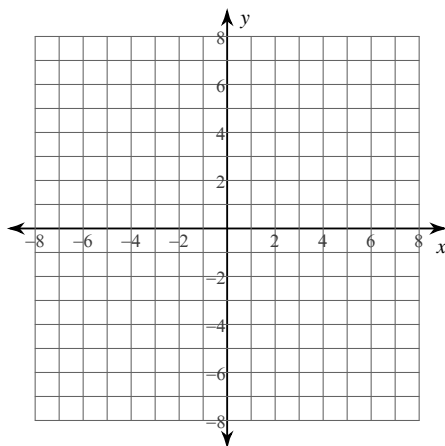
24) $y = \sqrt{x+6} + 4$



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



26) $y = \sqrt{x+4} + 4$



Practice Test WKS #2

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Solve each equation. Remember to check for extraneous solutions.

1) $4 = \sqrt{26 - x}$

 $\{10\}$

2) $\sqrt{12 - 2b} = \sqrt{4b}$

 $\{2\}$

3) $x - 7 = \sqrt{14 - 2x}$

 $\{7\}$

4) $\sqrt{3b - 21} - 5 = -2$

 $\{10\}$

5) $-3 - \sqrt{6 - 2x} = \sqrt{2x + 3}$

No solution.

6) $1 = \sqrt{\frac{x}{6}} - 1$

 $\{24\}$

Simplify.

$$7) 3\sqrt{15}(4 - 4\sqrt{3})$$
$$12\sqrt{15} - 36\sqrt{5}$$

$$8) 2\sqrt{5}(4 + \sqrt{10})$$
$$8\sqrt{5} + 10\sqrt{2}$$

$$9) \frac{2}{2 + \sqrt{3}}$$
$$4 - 2\sqrt{3}$$

$$10) \frac{4}{5\sqrt{5} - \sqrt{3}}$$
$$\frac{10\sqrt{5} + 2\sqrt{3}}{61}$$

$$11) \frac{2}{\sqrt{2} + \sqrt{3}}$$
$$-2\sqrt{2} + 2\sqrt{3}$$

$$12) \frac{5}{3\sqrt{3} + \sqrt{5}}$$
$$\frac{15\sqrt{3} - 5\sqrt{5}}{22}$$

$$13) \sqrt[5]{64b^8}$$
$$2b\sqrt[5]{2b^3}$$

$$14) \sqrt[3]{448x^5}$$
$$4x\sqrt[3]{7x^2}$$

$$15) \sqrt[4]{567n^7}$$
$$3n\sqrt[4]{7n^3}$$

$$16) \sqrt[4]{128x^7}$$
$$2x\sqrt[4]{8x^3}$$

$$17) \frac{\sqrt{3}}{2\sqrt{4}}$$
$$\frac{\sqrt{3}}{4}$$

$$18) \frac{\sqrt{4}}{3\sqrt{36}}$$
$$\frac{1}{9}$$

$$19) \frac{3\sqrt{20}}{5\sqrt{36}}$$
$$\frac{\sqrt{5}}{5}$$

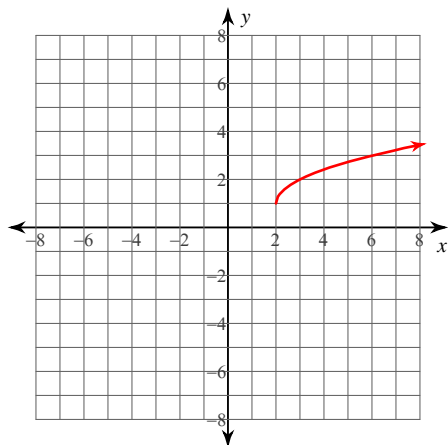
$$20) \frac{\sqrt{15}}{\sqrt{20}}$$
$$\frac{\sqrt{3}}{2}$$

$$21) 2\sqrt{5} - \sqrt{3} - 2\sqrt{20}$$
$$-2\sqrt{5} - \sqrt{3}$$

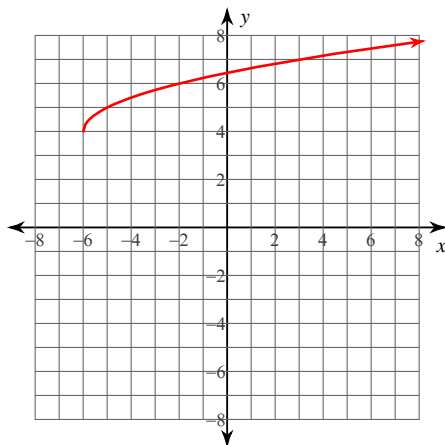
$$22) -2\sqrt{2} - 3\sqrt{54} - 2\sqrt{18}$$
$$-8\sqrt{2} - 9\sqrt{6}$$

Sketch the graph of each function.

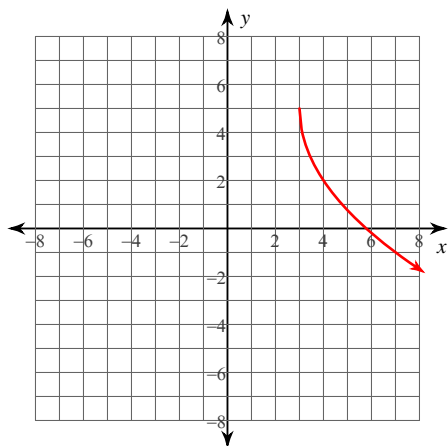
23) $y = \sqrt{x-2} + 1$



24) $y = \sqrt{x+6} + 4$



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



26) $y = \sqrt{x+4} + 4$

