

Radical Review 3

Date _____ Period _____

Simplify.

1) $(81n^6)^{\frac{1}{2}}$

2) $(8v^3)^{\frac{1}{3}}$

3) $(x^{16})^{\frac{1}{4}}$

4) $(n^6)^{\frac{1}{3}}$

5) $\sqrt[3]{625u^6v^7}$

6) $\sqrt[4]{48m^8n^2}$

7) $\sqrt{252x^4y^2}$

8) $\sqrt[4]{96u^2v^6}$

Solve each equation.

9) $17 = -10 + (r + 20)^{\frac{3}{2}}$

10) $20 = -7 + (27a)^{\frac{3}{4}}$

11) $625 = (5k)^{\frac{4}{3}}$

12) $5x^{\frac{2}{3}} - 6 = 39$

Solve each equation. Remember to check for extraneous solutions.

$$13) 16 = 8\sqrt{m+4}$$

$$14) 2 = 1 + \sqrt{5-2a}$$

$$15) \sqrt{\frac{v}{8}} = \sqrt{170-2v}$$

$$16) \sqrt{8-2k} = \sqrt{5-k}$$

$$17) -3 + \sqrt{4x+8} = x$$

$$18) \sqrt{6x+52} = x+2$$

Answers to Radical Review 3 (ID: 1)

1) $9n^3$

5) $5u^2v^2\sqrt[3]{5v}$

9) $\{-11\}$

13) $\{0\}$

17) $\{-1\}$

2) $2v$

6) $2m^2\sqrt[4]{3n^2}$

10) $\{3\}$

14) $\{2\}$

18) $\{8\}$

3) x^4

7) $6x^2y\sqrt{7}$

11) $\{25, -25\}$

15) $\{80\}$

4) n^2

8) $2v\sqrt[4]{6u^2v^2}$

12) $\{27, -27\}$

16) $\{3\}$