8th Grade Math

Name _____

**Cube Roots**

Period _____ Date _____

**Fill in the blanks to complete the radical expressions.**

1. $\sqrt[3]{27}$ = _____ because (____)$^3$ = 27
2. $\sqrt[3]{64}$ = _____ because (____)$^3$ = 64
3. $\sqrt[3]{1}$ = _____ because (____)$^3$ = 1
4. $\sqrt[3]{125}$ = _____ because (____)$^3$ = 125
5. $\sqrt[3]{343}$ = _____ because (____)$^3$ = 343
6. $\sqrt[3]{\frac{1}{216}}$ = _____ because (____)$^3$ = $\frac{1}{216}$
7. $\sqrt[3]{\frac{1}{1000}}$ = _____ because (____)$^3$ = $\frac{1}{1000}$
8. $\sqrt[3]{\frac{8}{125}}$ = _____ because (____)$^3$ = $\frac{8}{125}$
9. $\sqrt[3]{0.027}$ = _____ because (_____)$^3$ = 0.027
10. $\sqrt[3]{0.216}$ = _____ because (_____)$^3$ = 0.216

**Find the <u>square</u> root of each number.**

11. $\sqrt{49}$ = _____
12. $\sqrt{90{,}000}$ = _____
13. $\sqrt{0.0036}$ = _____
14. $\sqrt{2500}$ = _____
15. $\sqrt{\frac{1}{64}}$ = _____
16. $\sqrt{\frac{4}{81}}$ = _____

**Tell whether each number is rational or irrational.**

17. 23.6 _____

18. 3 _____

19. $\sqrt{15}$ _____

20. $1.6\overline{3}$ _____

**Order the numbers from least to greatest.**

21. 7, $\sqrt{43}$. 6.1, $\sqrt{71}$, $\sqrt{86}$, 8.8, $\sqrt{14}$, $\sqrt{35}$

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22. $\sqrt{52}$, 9.3, $\sqrt{72}$, 8.5, $\sqrt{66}$, 4.9, $\sqrt{10}$, 3.4

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23. 9.4, 5.5, $\sqrt{77}$, 4.4, $\sqrt{88}$, 6.6, $\sqrt{33}$, 8.8

_____

24. 7.1, 1.2, $\sqrt{50}$, 3.4, $\sqrt{40}$, 6.31, $\sqrt{20}$, 4.48

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