

Common Core Math 2 Honors

Quiz Review

Simplify. Leave your answer in simplest **radical** form.

1. $\sqrt[3]{x^{16}y^4}$

13. $27^{2/3}$

2. $\sqrt[4]{81x^7y^2}$

14. $216^{-1/3}$

3. $5x\sqrt[3]{32x^8}$

15. $\sqrt[6]{25}$

4. $(\sqrt[4]{2x^3})(\sqrt[4]{16x^3})$

16. $\sqrt[6]{125}$

5. $\sqrt[4]{x^{16}y^{18}}$

17. $(\sqrt[3]{x})(\sqrt{x})$

6. $\sqrt[15]{x^5y^{10}}$

18. $(\sqrt[4]{x^3})(\sqrt{3x})$

7. $\sqrt[6]{x^4y^2}$

19. $\sqrt[4]{2x^2}(\sqrt[4]{8x^3} + \sqrt[4]{x})$

8. $\sqrt[3]{54x^7y}$

20. $\sqrt[3]{x}(\sqrt[3]{81x^2} - \sqrt[3]{18x})$

9. $(\sqrt[5]{25x^4})(\sqrt[5]{125x^3})$

21. $(\sqrt[5]{x^3} - 1)(\sqrt[5]{x^3} + 1)$

10. $32^{2/5}$

22. $(\sqrt[3]{2x} + 1)(\sqrt[3]{2x} - 1)$

11. $\left(\frac{16}{625}\right)^{1/4}$

23. $(\sqrt[4]{a^3})(\sqrt[4]{a^3})$

12. $81^{-1/4}$

24. $\sqrt[3]{64x^5y^{10}z^{21}}$

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Solve

25. $b = \sqrt{-4 + 4b}$

26. $r = \sqrt{8r}$

27. $\sqrt{-16 + 10a} = a$

28. $r = \sqrt{-1 - 2r}$

29. $5 = \sqrt{r - 3}$

30. $\sqrt{2m - 6} = \sqrt{3m - 14}$

31. $(20 - r)^{\frac{1}{2}} = r$

32. $(6b)^{\frac{1}{2}} = (8 - 2b)^{\frac{1}{2}}$

33. $9 + 5\sqrt[3]{2m} = 29$

34. $-x^{\frac{3}{2}} = -27$