

RIDDLE
PRE AP ALGEBRA 2
TEST #6 REVIEW

NAME _____

Simplify.

1. $-\sqrt[4]{256} = \boxed{-4}$

2. $256^{\frac{1}{4}} = \boxed{4}$

3. $32^{\frac{3}{5}} = \boxed{\frac{1}{8}}$

4. $(\frac{36}{25})^{\frac{1}{2}} = \boxed{\frac{6}{5}}$

5. $m^{\frac{3}{4}}n^{\frac{5}{2}}p^{\frac{9}{8}}$
 $m^{\frac{6}{8}}n^{\frac{20}{8}}p^{\frac{9}{8}}$

6. $\frac{1}{3} = \frac{y^{\frac{2}{3}}}{y^5}$

7. $\frac{5}{\frac{1}{x^2-2}} = \frac{5x^{\frac{1}{2}} + 10}{x-4}$

8. $(d^{\frac{2}{5}})^{\frac{15}{8}} = \boxed{d^{\frac{3}{4}}}$

9. $\sqrt[4]{(m+4)^6} = \boxed{m+4}$

10. $\sqrt{676x^4y^6} = \boxed{26x^2y^3}$

11. $\sqrt[3]{-27x^9y^{12}}$
 $= \boxed{-3x^3y^4}$

12. $\sqrt[3]{-432}$
 $= \boxed{-6\sqrt[3]{2}}$

13. $\sqrt[4]{\frac{8}{9a^3}} = \frac{\sqrt[4]{72a}}{3a}$

14. $\sqrt{\frac{11}{9}} = \boxed{\frac{\sqrt{11}}{3}}$

15. $\sqrt{3x^2y^3} \cdot \sqrt{75xy^5}$
 $= \boxed{15xy^4\sqrt{x}}$

16. $\sqrt[3]{9t^5v^8} \cdot \sqrt[3]{6tv^4}$
 $= \boxed{3t^2v^4\sqrt[3]{2}}$

Express using rational exponents.

17. $\sqrt[3]{26} = \boxed{26^{\frac{1}{3}}}$

18. $\sqrt[3]{4} = \boxed{4^{\frac{1}{3}}}$

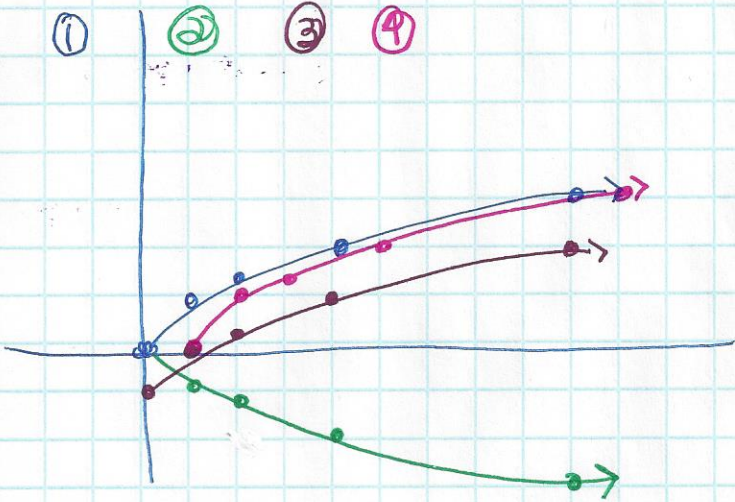
19. $\sqrt[10]{x^6} \times \frac{6}{10}$
 $= \boxed{x^{\frac{3}{5}}}$

Solve each equation. You must check your work.

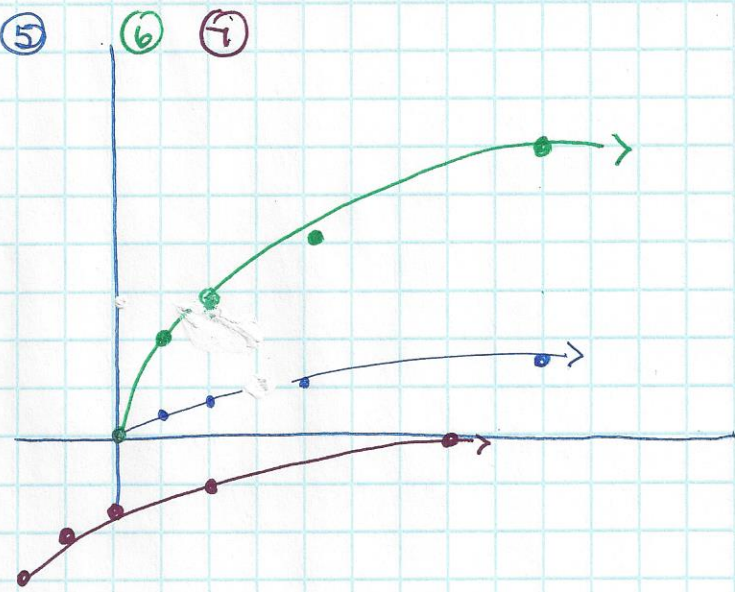
20. $(\sqrt{5y+4}-8)^2$
 $5y+4 = 64$
 $5y = 60$
 $y = \boxed{12}$

21. $\sqrt[4]{a+5}-1=0$
 $\sqrt[4]{a+5} = 1$
 $a+5 = 1$
 $a = \boxed{-4}$

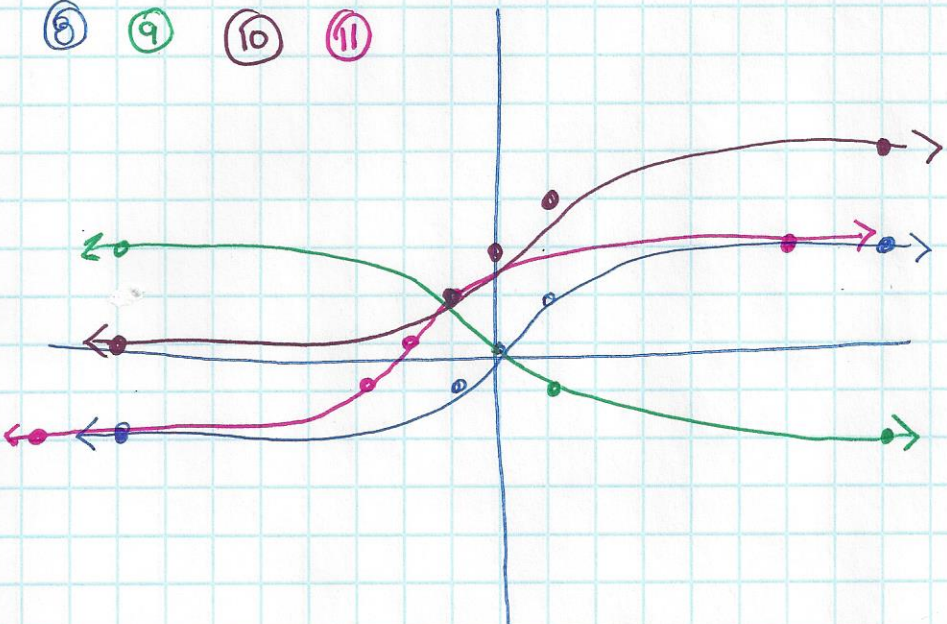
① ② ③ ④



⑤ ⑥ ⑦



⑧ ⑨ ⑩ ⑪



⑫ ⑬

