5 Algebra 2
Test Review C

N:

D: 12/12/12 P: 1 2 3 4 5 6

very cool!

1. $\left(-\frac{4}{5}\right)^{-2} = \frac{(-4)^{-2}}{5^{-2}} = \frac{5^2}{(-4)^2}$

$\boxed{\frac{25}{16}}$

2. $81^{-1/2} = \frac{1}{81^{1/2}} = \frac{1}{\sqrt{81}} = \boxed{\frac{1}{9}}$

3. $64^{2/3} = \sqrt[3]{64^2} = 4^2$

$\boxed{16}$

4. $\frac{5^{1/3}}{5^{-1/4}} = 5^{\frac{1}{3}--\frac{1}{4}} = 5^{\frac{4}{12}+\frac{3}{12}}$

$\boxed{5^{7/12}}$

5. $9^{\frac{1}{5}} \cdot 9^{\frac{2}{3}} = 9^{\frac{1}{5}+\frac{2}{3}}$

$= 9^{\frac{3}{15}+\frac{10}{15}}$

$= \boxed{9^{13/15}}$

6. $\left(3^{8/5} \cdot 3^{2/5}\right)^5 = 3^8 \cdot 3^2$

$\boxed{3^{10}}$

7. $\frac{1}{x^{-7}}$ ↑ $\boxed{x^7}$

8. $\sqrt{40}$

$\sqrt{4}\sqrt{10}$

$2\sqrt{10}$ $\boxed{2\sqrt{10}}$

9. ↝ $(7)^{4/3} = \boxed{\sqrt[3]{7^4}}$

10. $(-27)^{5/3} = \sqrt[3]{-27^5}$

$= (-3)^5$

$= \boxed{-243}$

81 × 3 = 243

11. $\left(7^{\frac{2}{5}}\right)^{\frac{3}{4}} = 7^{\frac{6}{20}} = \boxed{7^{3/10}}$

12. $(8 \cdot 64)^{1/3}$

$8^{1/3} \cdot 64^{1/3}$

$2 \cdot 4$

$\boxed{8}$

12