Warm up Fri wk 1 sem 2

Write in exponential form.

Write in radical form.

1. $\sqrt{6xy^3z^4}$ 2. $\sqrt[5]{10a^2c^5d^9}$

3. $\left(4x^2y^5\right)^{\frac{1}{4}}$ 4. $\left(3a^2c\right)^{\frac{2}{3}}$

$\sqrt[2]{6xy^3z^4}$

$10^{\frac{1}{5}}a^{\frac{2}{5}}cd^{\frac{9}{5}}$

$\sqrt[4]{4x^2y^5}$

$\sqrt[3]{\left(3a^2c\right)^2} = \sqrt[3]{9a^4c^2}$

$6^{\frac{1}{2}}x^{\frac{1}{2}}y^{\frac{3}{2}}z^{\frac{4}{2}} =$

$6^{\frac{1}{2}}x^{\frac{1}{2}}y^{\frac{3}{2}}z^2$

Solve. Check for extraneous roots.

7. $\sqrt{2x+3}+8=1$

No solutions

Simplify.

5. $-27^{\frac{2}{3}}$ 6. $8^{-\frac{2}{3}}$

$-(27)^{\frac{2}{3}} = -\left(\sqrt[3]{27}\right)^2$

$= -(3)^2 = -(9)$

$= -9$

$\dfrac{1}{8^{\frac{2}{3}}} = \dfrac{1}{\left(\sqrt[3]{8}\right)^2}$

$\dfrac{1}{4}$