4, 5, 6, 7, 8

4. $(-2^{-2})^{-1}$

$-2^2 = -4$

5. $(2^{-2} \cdot 3^{-1} \cdot 5^0)^{-1}$

$2^2 \cdot 3 \cdot 1 = 4 \cdot 3 = 12$

6. $5^{-1}(3^{-2} \cdot 2^{-3})^0$

$5^{-1} = \frac{1}{5}$

7. $2\left(\frac{2}{5}\right)^{-2} = 2 \cdot \frac{2^{-2}}{5^{-2}}$

$2 \cdot \frac{5^2}{2^2} = \frac{25}{2}$

$2 \cdot \frac{5^2}{2^2} = \frac{2 \cdot 25}{4} = \frac{50}{4} = \frac{25}{2}$

8. $\left(\frac{3}{4}\right)^{-1}\left(\frac{4}{3}\right)^{-2}$

$\frac{4}{3} \cdot \frac{3^2}{4^2} = \frac{36}{48} = \frac{3}{4}$

$\frac{3}{4}$

$$(-2)^2 = -2 \cdot -2 = 4$$

$$-2^2 = -2 \cdot 2 = -4$$

2/10/10

2. $(3 \cdot 5)^{-1}$

$$\frac{(3a^3)^{-2}}{a^{-3}b^{-3}} = \frac{3^{-2}a^{-6}}{a^{-3}b^{-3}}$$

$$\frac{\cancel{a^3}b^3}{3^2\cancel{a^3}} = \frac{b^3}{9a^3}$$

$$\frac{(a^{-2}b)^{-1}}{(ab^2)^{-2}}$$