

Simplify.

1. $3 \cdot 5^2$

$$3 \cdot 25$$

$$\boxed{75}$$

2. $7(-3^2)$

$$7(-9)$$

$$\boxed{-63}$$

3. $8(-6)^2$

$$8 \cdot 36$$

$$\boxed{288}$$

4. $-(-5)^3$

$$-(-125)$$

$$\boxed{125}$$

5. $(3x^9)^4$

$$\boxed{81x^{36}}$$

6. $(17z)(3z)^2$

$$17z \cdot 9z^2$$

$$\boxed{153z^3}$$

7. $\frac{(5x^2)^3}{100x^5}$

$$\frac{125x^6}{100x^5}$$

$$\boxed{\frac{5x}{4}}$$

8. $\frac{(3x^2)^3}{6x^5}$

$$\frac{27x^6}{6x^5} =$$

$$\boxed{\frac{9x}{2}}$$