

Simplify the following:

1. $\sqrt{150}$

2. $81\sqrt{5x^2}$

3. $\sqrt{49x^{20}y^5}$

4. $\sqrt{x^{100}y^9z^{25}}$

5. $\sqrt{70x^3}$

6. $-3x(\sqrt{50})(10\sqrt{10})$

7. $-\sqrt{3xy}\sqrt{15x^8y}$

8. $(3\sqrt{6x^3y^2})(-3\sqrt{8x^2yz})(xz\sqrt{9xz})$