

$$1) 3\sqrt{80} + 4\sqrt{63} - 6\sqrt{180} - 4\sqrt{7}$$

$$3\sqrt{4^2 \times 5} + 4\sqrt{3^2 \times 7} - 6\sqrt{6^2 \times 5} - 4\sqrt{7}$$

$$3\sqrt{4^2} \times \sqrt{5} + 4\sqrt{3^2} \times \sqrt{7} - 6\sqrt{6^2} \times \sqrt{5} - 4\sqrt{7}$$

$$3 \times 4\sqrt{5} + 4 \times 3\sqrt{7} - 6 \times 6\sqrt{5} - 4\sqrt{7}$$

$$(3 \times 4) \times \sqrt{5} + (4 \times 3) \times \sqrt{7} - (6 \times 6) \times \sqrt{5} - 4\sqrt{7}$$

$$12\sqrt{5} + 12\sqrt{7} - 36\sqrt{5} - 4\sqrt{7}$$

$$-24\sqrt{5} + 8\sqrt{7}$$

$$2) 5\sqrt[3]{ab^2} - 4\sqrt[3]{ab^2} - 8\sqrt[3]{ab^2} - 12\sqrt[3]{ab^2}$$

$$(5 - 4 - 8 - 12) \times \sqrt[3]{ab^2}$$

$$-19\sqrt[3]{ab^2}$$

$$3) 3\sqrt{2xy^2} - 3\sqrt{78x^3} - (x+2y)\sqrt{2x}$$

$$3\sqrt{2xy^2} - 3\sqrt{78x^2 \cdot x} - (x+2y)\sqrt{2x}$$

$$3\sqrt{y^2x} \cdot \sqrt{2x} - 3\sqrt{x^2} \cdot \sqrt{78x} - (x+2y)\sqrt{2x}$$

$$3|y|\sqrt{2x} - 3x\sqrt{78x} - (x+2y)\sqrt{2x}, x \geq 0$$

$$3y\sqrt{2x} - 3\sqrt{78x} - (\sqrt{2x}x + \sqrt{2x} \cdot 2y)$$

$$3y\sqrt{2x} - 3x\sqrt{78x} - (\sqrt{2x}xx + 2y\sqrt{2x})$$

$$3y\sqrt{2x} - 3x\sqrt{78x} - \sqrt{2x}xx - 2y\sqrt{2x}$$

$$3y\sqrt{2x} - 3x\sqrt{78x} - x\sqrt{2x} - 2y\sqrt{2x}$$

$$4) 7\sqrt{80} - 2\sqrt{800} - 5\sqrt{320} - \sqrt{450}$$

$$7\sqrt{4^2 \times 5} - 2\sqrt{20^2 \times 2} - 5\sqrt{8^2 \times 5} - \sqrt{15^2 \times 2}$$

$$7\sqrt{4^2} \times \sqrt{5} - 2\sqrt{20^2} \times \sqrt{2} - 5 \times 8\sqrt{5} - 15\sqrt{2}$$

$$(7 \times 4 \times \sqrt{5} - (2 \times 20) \times \sqrt{2} - (5 \times 8) \times \sqrt{5} - 15\sqrt{2})$$

$$-12\sqrt{5} - 55\sqrt{2}$$