数学 SaⅢ　§6　平方根（2）
マスターテスト　解答

〈解　答〉（1～3各 3 点，4各 6 点）

1　(1) $-\sqrt{14}$　　(2) $6\sqrt{2}$

[解説]

(2) $\sqrt{60} \div \sqrt{5} \times \sqrt{6} = \dfrac{2\sqrt{15} \times \sqrt{6}}{\sqrt{5}} = 2\sqrt{3} \times \sqrt{6} = 6\sqrt{2}$

2　(1) $\dfrac{\sqrt{15}}{5}$　　(2) $\dfrac{5\sqrt{7}}{21}$

[解説]

(1) $\dfrac{\sqrt{3}}{\sqrt{5}} = \dfrac{\sqrt{3} \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} = \dfrac{\sqrt{15}}{5}$

(2) $\dfrac{5}{\sqrt{63}} = \dfrac{5}{3\sqrt{7}} = \dfrac{5\sqrt{7}}{3\sqrt{7} \times \sqrt{7}} = \dfrac{5\sqrt{7}}{21}$

3　(1) $-\sqrt{6}$　　(2) 0

[解説]

(1) $\sqrt{24} - \sqrt{54} = 2\sqrt{6} - 3\sqrt{6} = -\sqrt{6}$

(2) $\sqrt{12} - \sqrt{75} + \sqrt{27} = 2\sqrt{3} - 5\sqrt{3} + 3\sqrt{3} = 0$

4　(1) $-2\sqrt{3}$　　(2) $-\sqrt{2}$

[解説]

(1) $\dfrac{6}{\sqrt{3}} - \sqrt{48} = \dfrac{6\sqrt{3}}{\sqrt{3} \times \sqrt{3}} - 4\sqrt{3} = 2\sqrt{3} - 4\sqrt{3} = -2\sqrt{3}$

(2) $\sqrt{32} + \dfrac{10}{\sqrt{50}} - 2\sqrt{6} \times \sqrt{3} = 4\sqrt{2} + \dfrac{10}{5\sqrt{2}} - 2\sqrt{6 \times 3} = 4\sqrt{2} + \sqrt{2} - 6\sqrt{2} = -\sqrt{2}$