

## <第 28 回 解答と解説>

1 (1)  $\frac{\sqrt{30}}{6}$  (2)  $\frac{\sqrt{2}}{4}$  (3)  $\frac{\sqrt{3}}{2}$

2 (1)  $20\sqrt{3}$  (2) 20 (3) 18

(4)  $30\sqrt{2}$  (5) 60 (6)  $7\sqrt{6}$

(7)  $\frac{\sqrt{2}}{2}$  (8)  $\frac{\sqrt{10}}{2}$  (9)  $\sqrt{3}$

### 解説

(1) 与式  $= 5 \times \sqrt{2} \times 2 \times \sqrt{6} = 10 \times 2\sqrt{3} = 20\sqrt{3}$

(2) 与式  $= 2^2 \times (\sqrt{5})^2 = 4 \times 5 = 20$

(3) 与式  $= (-3)^2 \times (\sqrt{2})^2 = 9 \times 2 = 18$

(4) 与式  $= 10\sqrt{18} = 10 \times 3\sqrt{2} = 30\sqrt{2}$

3 (1)  $4\sqrt{7}$  (2)  $-3\sqrt{2}$  (3)  $7\sqrt{6} + 5\sqrt{3}$

(4)  $2\sqrt{2} + 4\sqrt{5}$  (5)  $\frac{3\sqrt{2}}{2}$  (6)  $\frac{5\sqrt{3}}{6}$

### 解説

(1) 与式  $= 3\sqrt{7} + \sqrt{7} = 4\sqrt{7}$

(2) 与式  $= 3\sqrt{2} - 2 \times 3\sqrt{2} = 3\sqrt{2} - 6\sqrt{2} = -3\sqrt{2}$

4 (1) 6 (2) 2 (3)  $10\sqrt{2}$

(4)  $2\sqrt{6}$

### 解説

(1) 与式  $= 6\sqrt{20} \div 2\sqrt{5} = 3\sqrt{4} = 3 \times 2 = 6$