

班級：\_\_\_\_\_ 座號：\_\_\_\_\_ 姓名：\_\_\_\_\_

簡記下列各式

(1)  $5 \times \sqrt{6}$

(2)  $5 \times 2\sqrt{15}$

(3)  $\frac{3}{7} \times (-\sqrt{14})$

(4)  $-6 \times \frac{2}{3} \sqrt{6}$

將下列各式化為最簡根式

(5)  $\sqrt{80}$

(6)  $\sqrt{108}$

(7)  $\sqrt{468}$

(8)  $\sqrt{1575}$

(9)  $\sqrt{2^3 \times 3^4 \times 5}$

(10)  $\sqrt{3^5 \times 5^2 \times 7}$

計算下列各式，並化為最簡根式

(11)  $-3\sqrt{7} \times 5\sqrt{2}$

(12)  $\sqrt{2} \times \sqrt{3} \times \sqrt{7}$

(13)  $\sqrt{\frac{1}{5}} \times 7\sqrt{5}$

(14)  $\sqrt{\frac{12}{7}} \times (-\sqrt{\frac{35}{6}})$

(15)  $\sqrt{8} \times \sqrt{15}$

(16)  $\sqrt{75} \div \sqrt{15}$

(17)  $\sqrt{26} \div \sqrt{\frac{13}{6}}$

(18)  $\sqrt{\frac{4}{3}} \div \sqrt{\frac{2}{9}}$

(19)  $\sqrt{1\frac{1}{3}} \times \sqrt{1\frac{1}{4}} \times \sqrt{12}$

(20)  $\frac{1}{\sqrt{7}}$

(21)  $\frac{5}{2\sqrt{3}}$

(22)  $\sqrt{\frac{3}{7}}$

(23)  $\sqrt{2} \div \sqrt{6}$

(24)  $\sqrt{10} \div \sqrt{\frac{1}{7}} \div \sqrt{3}$

(25)  $(-\sqrt{\frac{5}{6}}) \times \sqrt{\frac{54}{125}} \div (-\sqrt{\frac{2}{5}})$

(26)  $\frac{\sqrt{16}}{\sqrt{12}} \times \frac{\sqrt{5}}{\sqrt{3}} \div \frac{\sqrt{8}}{\sqrt{15}}$

(27)  $-\sqrt{\frac{3}{5}} \div (\sqrt{\frac{2}{7}} \times \sqrt{\frac{14}{18}})$

(28)  $15\sqrt{7} + 5\sqrt{7}$

(29)  $-4\sqrt{10} + 5\sqrt{10}$

(30)  $3\sqrt{2} - 4\sqrt{2} + 2\sqrt{2}$

(31)  $\frac{2}{3}\sqrt{3} + \frac{2}{5}\sqrt{3} - \frac{3}{2}\sqrt{3}$

(32)  $5\sqrt{7} - 3\sqrt{3} - 2\sqrt{7} - 5\sqrt{3}$

$$(33) 3 - 2\sqrt{3} - (5 - 7\sqrt{3})$$

$$(34) 2\sqrt{12} - \sqrt{48} + 5\sqrt{3}$$

$$(35) -\sqrt{12} + \sqrt{8} - (\sqrt{3} + \sqrt{32})$$

$$(36) \sqrt{\frac{5}{7}} - \sqrt{\frac{7}{5}}$$

$$(37) \sqrt{\frac{8}{27}} + \sqrt{54}$$

$$(38) \sqrt{3}(2 - 3\sqrt{6})$$

$$(39) -2(\sqrt{12} + \sqrt{3}) + 3(2\sqrt{2} + \sqrt{3})$$

$$(40) \sqrt{3}(\sqrt{18} + \sqrt{15}) - \sqrt{2}(\sqrt{3} + \sqrt{10})$$

$$(41) \sqrt{2}(4 - 2\sqrt{6})$$

$$(42) 2\sqrt{15}(3\sqrt{3} - \sqrt{10})$$

$$(43) \sqrt{18}(-\sqrt{12} + 3\sqrt{5})$$

$$(44) (\sqrt{7} + \sqrt{2})^2$$

$$(45) (3\sqrt{2} - \sqrt{3})^2$$

$$(46) (1 - \sqrt{3})^2$$

$$(47) (\sqrt{13} + \sqrt{2})(\sqrt{13} - \sqrt{2})$$

$$(48) (4 - \sqrt{10})(4 + \sqrt{10})$$

$$(49) \frac{\sqrt{5} - \sqrt{3}}{\sqrt{15}}$$

$$(50) \frac{\sqrt{12} - 4}{\sqrt{2}}$$

$$(51) \frac{1}{\sqrt{3} + \sqrt{2}}$$

$$(52) \frac{4}{3 - \sqrt{3}}$$

$$(53) \frac{2}{\sqrt{5} + \sqrt{3}}$$

$$(54) \frac{\sqrt{21}}{\sqrt{7} - \sqrt{3}}$$

$$(55) \frac{1}{2\sqrt{2} - 1}$$

$$(56) \frac{\sqrt{5}}{3\sqrt{2} + 2}$$

$$(57) \frac{\sqrt{3}}{2\sqrt{3} - 3}$$