

1. 计算下列各题.

$$(1) (\sqrt{6} - 2\sqrt{15}) \times \sqrt{3} - 6\sqrt{\frac{1}{2}}; \quad (2) \frac{1}{\sqrt{12}} + |\sqrt{8} - 3| + \left(-\frac{1}{2}\right)^{-1} - 2016^0;$$

$$(3) \begin{cases} \frac{x+1}{3} = 2y \\ 2(x+1) - y = 11 \end{cases}; \quad (4) \begin{cases} 2x - 5y = -3 \\ 5x - 2y = -18 \end{cases}.$$

3. 解下列方程组: (1) $\begin{cases} x - 2y = 1 \\ 2x + 3y = 16 \end{cases}$ (2) $\begin{cases} \frac{x}{3} - \frac{y+1}{2} = 1 \\ 4x - (2y - 5) = 11 \end{cases}$

4. 解下列方程组:

$$(1) \begin{cases} 4x - y = 30 \\ x - 2y = -10 \end{cases}; \quad (2) \begin{cases} \frac{x}{3} - \frac{y}{4} = 1 \\ 3x - 4y = 2 \end{cases}.$$

5. 计算:

$$(1)(\sqrt{5}-\sqrt{7})(\sqrt{5}+\sqrt{7})\div 2; \quad (2)\sqrt{32}-3\sqrt{\frac{1}{2}}+\sqrt{2};$$

$$(3)\sqrt{3}+(-2\sqrt{3})^2-(\sqrt{48}-\sqrt{\frac{1}{2}}\times\sqrt{6}); \quad (4)(2023-\pi)^0+\sqrt[3]{-27}-\sqrt{9}+(\frac{1}{2})^{-2}.$$

6. 计算:

$$(1)-\frac{4}{3}\sqrt{18}\div 2\sqrt{8}\times\frac{1}{3}\sqrt{54}; \quad (2)(3\sqrt{48}-2\sqrt{27})\div\sqrt{3}.$$

$$7. \text{ 计算: } (-1)^{2022}+|-\sqrt{2}|+(\frac{1}{2})^{-1}-\sqrt{8}.$$