

$$\begin{aligned} 1. & 2^3 + (-3)^2 \div \left(-\frac{3}{2}\right) \\ & = 8 + 9 \times \left(-\frac{2}{3}\right) = 8 - \frac{9 \times 2}{3} = 8 - 6 = 2 \end{aligned}$$

$$\begin{aligned} 2. & \frac{15}{4} \div \left(-\frac{5}{8}\right) - (-3^2) \\ & = -\frac{15 \times 8}{4 \times 5} - (-9) = -6 + 9 = 3 \end{aligned}$$

$$\begin{aligned} 3. & \left(\frac{11}{4}\right)^2 \times \left(\frac{16}{3} - \frac{16}{11}\right) + \frac{2}{3} \\ & = \frac{11^2}{16} \times \frac{16 \times (11-3)}{33} + \frac{2}{3} = \frac{11 \times 8}{3} + \frac{2}{3} = \frac{90}{3} = 30 \end{aligned}$$

$$4. -7 + \left(-\frac{1}{8}\right) \times 24 = -7 - 3 = -10$$

$$\begin{aligned} 5. & \{-2 \times (-3)^2 + 7 \times 3\} \div \left(-\frac{1}{3}\right) \\ & = (-18 + 21) \times (-3) = 3 \times (-3) = -9 \end{aligned}$$

$$\begin{aligned}
 6. & \left\{ \left(\frac{3}{2} \right)^{2024} - \left(\frac{3}{2} \right)^{2023} \right\} \div \left(\frac{3}{2} \right)^{2022} \\
 & = \left(\frac{3}{2} \right)^{2024 \div 2022} - \left(\frac{3}{2} \right)^{2023 \div 2022} = \left(\frac{3}{2} \right)^2 - \frac{3}{2} = \frac{3}{4}
 \end{aligned}$$

$$\begin{aligned}
 7. & \frac{9}{28} \div \left(-\frac{3}{7} \right) \div (-3) - 0.75 \\
 & = \frac{9 \times 7}{28 \times 3 \times 3} - \frac{3}{4} = \frac{1}{4} - \frac{3}{4} = -\frac{1}{2}
 \end{aligned}$$

$$\begin{aligned}
 8. & 5 \div (-6) - \frac{5}{9} \times \left(-\frac{3}{2} \right)^3 \\
 & = -\frac{5}{6} - \frac{5}{9} \times \left(-\frac{27}{8} \right) = -\frac{5}{6} + \frac{15}{8} = -\frac{20}{24} + \frac{45}{24} = \frac{25}{24}
 \end{aligned}$$

$$\begin{aligned}
 9. & (-0.25)^{2 \times (-8)} + 0.8 \div (-0.4) \\
 & = \left(-\frac{1}{4} \right)^{2 \times (-8)} + \frac{8}{10} \div \left(-\frac{4}{10} \right) = \frac{1}{16} \times (-8) - 2 = -\frac{1}{2} - 2 = -\frac{5}{2}
 \end{aligned}$$

$$\begin{aligned}
 10. & 5 - \left\{ 1 - \left(\frac{5}{3} \right)^{2 \div \frac{10}{3}} \right\} \times (-3)^2 \\
 & = 5 - \left(1 - \frac{5 \times 5 \times 3}{3 \times 3 \times 10} \right) \times 9 = 5 - \frac{1}{6} \times 9 = 5 - \frac{3}{2} = \frac{7}{2}
 \end{aligned}$$

$$\begin{aligned}
 11. \quad & \left(-\frac{4}{3}\right)^{2 \div} \frac{1}{18} + \frac{8}{9} \div \left(-\frac{2}{3}\right)^3 \\
 & = \frac{4 \times 4 \times 18}{3 \times 3 \times 1} - \frac{8 \times 3 \times 3 \times 3}{9 \times 2 \times 2 \times 2} = 32 - 3 = 29
 \end{aligned}$$

$$\begin{aligned}
 12. \quad & \left(-\frac{1}{2}\right)^2 - \left(-\frac{2}{15}\right) \div 1.2 \times (-3^2) \\
 & = \frac{1}{4} - \frac{2 \times 10 \times 3 \times 3}{15 \times 12} = \frac{1}{4} - 1 = -\frac{3}{4}
 \end{aligned}$$

$$\begin{aligned}
 13. \quad & \frac{3^2}{8} \div (-1.5)^3 + \frac{5}{6} \\
 & = -\frac{3 \times 3 \times 2 \times 2 \times 2}{8 \times 3 \times 3 \times 3} + \frac{5}{6} = -\frac{1}{3} + \frac{5}{6} = \frac{1}{2}
 \end{aligned}$$

$$\begin{aligned}
 14. \quad & \left(-\frac{1}{2}\right)^3 - (4 - 5) \\
 & = -\frac{1}{8} + 1 = \frac{7}{8}
 \end{aligned}$$

$$\begin{aligned}
 15. \quad & \left(\frac{3}{5}\right)^{2 \div} \left(\frac{7}{2} - \frac{7}{5}\right) + \frac{10}{7} \\
 & = \frac{9}{25} \div \left(\frac{35}{10} - \frac{14}{10}\right) + \frac{10}{7} = \frac{9}{25} \div \frac{21}{10} + \frac{10}{7} = \frac{6}{35} + \frac{10}{7} = \frac{56}{35} = \frac{8}{5}
 \end{aligned}$$

$$\begin{aligned} 16. \quad & -8 + (-0.25) \times 16 \\ & = -8 - 4 = -12 \end{aligned}$$

$$\begin{aligned} 17. \quad & \{13^2 - (-7)^2\} \div \left(-\frac{2}{3}\right)^2 \\ & = (169 - 49) \times \frac{9}{4} = 120 \times \frac{9}{4} = 270 \end{aligned}$$

$$\begin{aligned} 18. \quad & \frac{2}{5} \div \left\{(0.6)^2 - \frac{11}{25}\right\} \times 0.2 \\ & = \frac{2}{5} \div \left\{\frac{9}{25} - \frac{11}{25}\right\} \times \frac{1}{5} = -\frac{2}{5} \div \frac{2}{25} \times \frac{1}{5} = -\frac{2 \times 25 \times 1}{5 \times 2 \times 5} = -1 \end{aligned}$$

$$\begin{aligned} 19. \quad & 0.6 - \frac{8}{15} \times \left(-\frac{3}{4}\right) \\ & = \frac{3}{5} + \frac{2}{5} = 1 \end{aligned}$$

$$\begin{aligned} 20. \quad & \left(\frac{1}{2}\right)^2 - \left(\frac{1}{3}\right)^2 \\ & = \frac{1}{4} - \frac{1}{9} = \frac{9}{36} - \frac{4}{36} = \frac{5}{36} \end{aligned}$$