

# JMCWC 2025 Workshop on Surprise Calculations

$60^2 \times 50^2 = \underline{\hspace{2cm}} \quad (4)$

$32^2 \times 25^2 = \underline{\hspace{2cm}} \quad (5)$

$49^2 \times 49^2 = \underline{\hspace{2cm}} \quad (6)$

$43^2 \times 49^2 = \underline{\hspace{2cm}} \quad (7)$

$23^2 \times 92^2 = \underline{\hspace{2cm}} \quad (8)$

$21^2 - 20^2 = \underline{\hspace{2cm}} \quad (2)$

$46^2 - 45^2 = \underline{\hspace{2cm}} \quad (3)$

$88^2 - 87^2 = \underline{\hspace{2cm}} \quad (4)$

$258^2 - 257^2 = \underline{\hspace{2cm}} \quad (5)$

$365^2 - 363^2 = \underline{\hspace{2cm}} \quad (6)$

$1/4 + 3/7 + 2/9 = \underline{\hspace{2cm}} \quad (6)$

$2/5 + 4/9 + 3/8 = \underline{\hspace{2cm}} \quad (6)$

$5/6 - 3/8 - 1/9 = \underline{\hspace{2cm}} \quad (6)$

$1/6 - 3/4 + 4/7 = \underline{\hspace{2cm}} \quad (6)$

$3/4 + 5/6 + 7/8 = \underline{\hspace{2cm}} \quad (6)$

## Exact Cube Roots

$$\begin{aligned} \sqrt[3]{506204406341873} \\ = \underline{\hspace{2cm}} \quad (15) \end{aligned}$$

$$\begin{aligned} \sqrt[3]{41547564997875} \\ = \underline{\hspace{2cm}} \quad (15) \end{aligned}$$

## Nearest Integer (Example: $1 + \sqrt{10} \rightarrow 4$ )

$\sqrt{50} + \sqrt{15} \rightarrow \underline{\hspace{2cm}} \quad (3)$

$\sqrt{55} + \sqrt{56} \rightarrow \underline{\hspace{2cm}} \quad (4)$

$\sqrt{1000} + \sqrt{343} \rightarrow \underline{\hspace{2cm}} \quad (5)$

$\sqrt{1875} + \sqrt{2090} \rightarrow \underline{\hspace{2cm}} \quad (6)$

$7 \times \sqrt{43} \rightarrow \underline{\hspace{2cm}} \quad (6)$

$15 \times \sqrt{12} \rightarrow \underline{\hspace{2cm}} \quad (6)$

$37 \times \sqrt{6} \rightarrow \underline{\hspace{2cm}} \quad (10)$

## Calculating with Pi

[ $\pi = 3.141592653589793\dots$ ]

$\pi + 1/9 \quad (5 \text{ d.p.}) \quad \underline{\hspace{2cm}} \quad (5)$

$25 \pi \quad (5 \text{ d.p.}) \quad \underline{\hspace{2cm}} \quad (7)$

$(\pi + 2)^2 \quad (3 \text{ d.p.}) \quad \underline{\hspace{2cm}} \quad (12)$

$7 \div \pi \quad (5 \text{ d.p.}) \quad \underline{\hspace{2cm}} \quad (16)$

$\pi \div 2025 \quad (5 \text{ d.p.}) \quad \underline{\hspace{2cm}} \quad (10)$

TIME:                     

POINTS =            / 200