

Quiz 10

Solutions given without showing work may earn a zero. This quiz is closed-book, but you may use a calculator.

Problem 1. [3 points] Simplify completely:

$$10\sqrt{2x} - 5\sqrt{8x} + 8\sqrt{4}$$

Problem 2. [3 points] Simplify completely: $\frac{\sqrt[3]{40x^6y^4}}{\sqrt[3]{5y}}$

Problem 3. [4 points] Multiply and simplify: $(4 + 2\sqrt{5})^2$

① $10\sqrt{2x} - 5 \cdot 2\sqrt{2x} + 8 \cdot 2 = \boxed{16}$

② $\sqrt[3]{\frac{40x^6y^4}{5y}} = \sqrt[3]{8x^6y^3} = \boxed{2x^2y}$

③ $16 + 16\sqrt{5} + 20 = \boxed{36 + 16\sqrt{5}}$