Mathematics Unit 2 | Practice Workbook

Day 1: Rational and irrational numbers

Read the matching student lesson first. Show reasoning and include units where needed.

1. Classify -8 as integer, rational, or both.

2. Write 0.25 as a simplified fraction.

3. Write 0.666... as a fraction.

4. Is √2 rational or irrational?

Mathematics Unit 2 | Practice Workbook

Day 1: Rational and irrational numbers

Read the matching student lesson first. Show reasoning and include units where needed.

5. Is π rational or irrational?

6. Is 1.41 an exact value of √2?

7. Is zero a whole number?

8. Explain why every integer is rational.

Mathematics Unit 2 | Practice Workbook

Day 2: Squares and square roots

Read the matching student lesson first. Show reasoning and include units where needed.

1. Find $\sqrt{64}$.

2. Solve $x^2 = 64$ over the real numbers.

3. Find $\sqrt{0}$.

4. Between which consecutive integers is $\sqrt{30}$?

Mathematics Unit 2 | Practice Workbook

Day 2: Squares and square roots

Read the matching student lesson first. Show reasoning and include units where needed.

5. Between which consecutive integers is $\sqrt{70}$?

6. Is $\sqrt{81}$ rational?

7. A square has area 49 cm^2. Find its side length.

8. Explain the difference between $\sqrt{25}$ and the solutions of $x^2 = 25$.

Mathematics Unit 2 | Practice Workbook

Day 3: Estimating and ordering

Read the matching student lesson first. Show reasoning and include units where needed.

1. Between which integers is $\sqrt{10}$?

2. Is $\sqrt{10}$ greater than 3.1?

3. Is $\sqrt{10}$ less than 3.2?

4. Calculate 1.4^2.

Mathematics Unit 2 | Practice Workbook

Day 3: Estimating and ordering

Read the matching student lesson first. Show reasoning and include units where needed.

5. Calculate 1.5^2.

6. Order 1.4, √2, 1.5 from least to greatest.

7. What symbol indicates approximately equal?

8. Explain why 1.414 is not exactly √2.

Mathematics Unit 2 | Practice Workbook

Day 4: Integer exponents and powers

Read the matching student lesson first. Show reasoning and include units where needed.

1. Evaluate $2^3 \times 2^2$.

2. Evaluate $3^4 \div 3^2$.

3. Evaluate 5^0.

4. Write 2^{-3} as a fraction.

Mathematics Unit 2 | Practice Workbook

Day 4: Integer exponents and powers

Read the matching student lesson first. Show reasoning and include units where needed.

5. Evaluate $(-3)^2$.

6. Evaluate -3^2.

7. Is 0^{-1} defined?

8. Explain why 2^{-3} is positive.

Mathematics Unit 2 | Practice Workbook

Day 5: Independent assessment

Read the matching student lesson first. Show reasoning and include units where needed.

1. Classify $\sqrt{3}$ as rational or irrational.

2. Write 0.125 as a simplified fraction.

3. Solve $x^2 = 36$ over the real numbers.

4. Between which consecutive integers is $\sqrt{50}$?

Mathematics Unit 2 | Practice Workbook

Day 5: Independent assessment

Read the matching student lesson first. Show reasoning and include units where needed.

5. Is $\sqrt{5}$ greater than 2.2? Explain using a square.

6. Evaluate $2^4 \times 2^3$.

7. Evaluate 10^{-2} as a fraction or decimal.

8. A square has area 20 cm^2. Give its exact side length and bracket it between consecutive whole numbers.