

Estimation and Rounding

Chapter 3: Number Play · Topic 1

Key Concept

Estimation is a practical, everyday skill — for example, quickly estimating the total cost of grocery items by rounding each price helps avoid overspending without needing exact calculations at the store. In mathematics, estimation is also used to verify if a detailed calculation is reasonable — if an estimated answer differs greatly from a calculated answer, it signals a likely error that should be rechecked, making estimation a valuable error-checking tool.

Quick Revision Notes

- Rounding rule: if the relevant digit is 5 or more, round up; otherwise round down.
- Estimation helps make quick approximate calculations without needing exact values.
- Estimation is useful for checking whether a calculated answer is reasonable.
- A large gap between an estimate and a calculated answer suggests a possible error.

Practice Questions

- 1 Estimate the sum of 293 and 407 by rounding to the nearest hundred.
- 2 Round 5,678 to the nearest thousand.
- 3 Explain how estimation can help you catch a calculation error.