Year 5 Place value and estimation - topic test

12 questions | 22 marks | 30 minutes

Start with place value, then apply rounding and check calculations. Show your working.

Equivalent correct methods earn the corresponding marks.

1. What is the value of 6 in 846,109? [1 mark]

The 6 is in the thousands place.

Answer: 6,000

2. Write seventy-three thousand and five as a numeral. [1 mark]

The final group needs three places: 005.

Answer: 73,005

3. Write 905,040 in standard expanded form. [2 marks]

The non-zero digit values are 900,000, 5,000 and 40.

Answer: $900,000 + 5,000 + 40$

4. Which is smaller: 409,980 or 410,008? Explain using place value. [2 marks]

Both have 4 hundred-thousands; 0 ten-thousands is less than 1 ten-thousand.

Answer: 409,980

5. What number is $5 \text{ hundreds} + 35 \text{ tens} + 2 \text{ ones}$? [2 marks]

$500 + 350 + 2 = 852$.

Answer: 852

6. Round 58,497 to the nearest hundred. [1 mark]

58,497 is above the halfway point 58,450.

Answer: 58,500

7. Round 58,497 to the nearest thousand. [1 mark]

58,497 is below the halfway point 58,500.

Answer: 58,000

8. Estimate $598 + 1,209$ by rounding each amount to the nearest hundred. [2 marks]

$600 + 1,200 = 1,800$.

Answer: About 1,800

9. Order 99,009, 99,900 and 99,090 from smallest to largest. [2 marks]

Compare hundreds first, then tens.

Answer: $99,009 < 99,090 < 99,900$

10. Complete: $6,324 = 62 \text{ hundreds} + ___ \text{ tens} + 4 \text{ ones}$. [2 marks]

$6,324 - 6,200 - 4 = 120$, which is 12 tens.

Answer: 12

11. A library buys 17 packs of 48 books. A student gives the total as 8,160. Find the correct total and explain why 8,160 is too large. [3 marks]

$17 \times 48 = 480 + 336 = 816$. The estimate $20 \times 50 = 1,000$ also rejects 8,160.

Answer: 816 books; 8,160 is ten times too large.

12. Find the smallest and largest whole numbers that round to 7,300 to the nearest hundred. [3 marks]

7,250 is the first midpoint rounding up to 7,300. At 7,350 rounding changes to 7,400.

Answer: 7,250 and 7,349