

Y6 Estimating Multi Step Problems

KS2 Y6 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Estimate $6,182 \times 47$.

Step 1 · Round 6,182 to the nearest 1,000

6,000

Step 2 · Round 47 to the nearest 10

50

Step 3 · $6,000 \times 50$

300,000

Answer: About 300,000

Check: The exact answer is 290,554, close to the estimate ✓

2. Now try one with the steps

A school orders 28 packs of 144 pencils. It uses 1,250 pencils. How many are left?

Step 1 · Step 1: how many pencils altogether? 144×28

Step 2 · Step 2: subtract the pencils used

Step 3 · Estimate: $150 \times 30 = 4,500$; $4,500 - 1,000$

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. Estimate $4,915 + 3,098$ by rounding each number to the nearest 1,000.

2. Estimate $7,812 - 2,950$ by rounding each number to the nearest 1,000.

3. Estimate 59×412 .

4. Estimate $6,320 \div 79$.

5. Tom says $3,104 \times 22 = 6,828$. Use an estimate to show he is wrong, then find the right answer.

6. A box holds 24 tins. A shop orders 135 boxes and sells 1,980 tins. How many tins are left?

7. Lily saves £15 a week for 26 weeks, then spends £249. How much does she have left?

8. Cinema tickets: 3 adults at £12 and 4 children at £8. They pay with £80. How much change?

9. A farmer packs 1,456 eggs into boxes of 6 and sells each full box for £2. How much money does he get for the full boxes?

10. Two numbers add up to 5,000. One is 1,240 more than the other. What are the two numbers?

11. A school raises £2,340 in autumn and twice in spring. How much does it raise altogether?

12. Kai has 4 times cards Together they have 1,375 cards. How many cards does Kai have?

13. A train has 8 carriages with 76 seats in each. 512 seats are taken. How many seats are empty?

14. A café sells 45 cups of tea an hour. It is open 9 hours a day, 6 days a week. How many cups does it sell in a week?

15. Estimate $2,980 + 4,015 + 1,996$, then work out the exact answer.

4. Before you hand it in

Stopping after step 1, e.g. giving 4,032 number of pencils left.

Underline what the question asks. Plan the steps before calculating, and check the final answer answers the question.

Estimating $6,320 \div 79$ as $6,000 \div 100 = 60$.

Round to numbers that divide easily and stay close: $6,400 \div 80 = 80$.

Accepting $3,960 \div 18 = 22$.

$4,000 \div 20 = 200$, so the answer must be about 200. Look for a missing 0 in the working.