

Arithmetic Practice: Written Methods

Column methods, multiplication, division, decimals, percentages and order of operations.

Name _____ Date _____ Class _____

Learning objective: I can use efficient written methods to calculate accurately.

✓ I line up digits by place value ✓ I can multiply and divide with written methods ✓ I can work with decimals and percentages

1 Column addition and subtraction

Use the column method. Remember to exchange (carry or borrow) when you need to.

1

$$\begin{array}{r} 456 \\ + 327 \\ \hline \\ \hline \end{array}$$

2

$$\begin{array}{r} 2385 \\ + 1947 \\ \hline \\ \hline \end{array}$$

3

$$\begin{array}{r} 803 \\ - 458 \\ \hline \\ \hline \end{array}$$

4

$$\begin{array}{r} 6000 \\ - 2716 \\ \hline \\ \hline \end{array}$$

2 Multiplication

Use short multiplication for 1-digit numbers and long multiplication for 2-digit numbers.

1 $243 \times 6 =$

Answer

2 $1,507 \times 4 =$

Answer

3 $38 \times 27 =$

Answer

4 $264 \times 53 =$

Answer

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3 Short division Use the bus stop method.

1 $852 \div 4 =$

Answer

2 $3,135 \div 5 =$

Answer

3 $7,224 \div 8 =$

Answer

4 $486 \div 9 =$

Answer

4 Decimals Line up the decimal points.

1 $3.7 + 2.45 =$

Answer

2 $10 - 6.38 =$

Answer

3 $0.6 \times 7 =$

Answer

4 $4.5 \times 100 =$

Answer

5 $36.4 \div 10 =$

Answer

6 $2.08 + 0.9 =$

Answer

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5 Percentages Find 10% or 1% first if it helps.

1 10% of 340 =

2 25% of 80 =

3 50% of 46 =

4 1% of 600 =

5 75% of 120 =

6 20% of 45 =

6 Order of operations Remember: brackets, then indices (powers), then $\times$ and $\div$, then $+$ and $-$.

1 $3 + 4 \times 5 =$

2 $(3 + 4) \times 5 =$

3 $20 - 12 \div 4 =$

4 $6^2 - 10 =$

7 Explain

- 1 Ellie says $3 + 4 \times 5 = 35$. Explain her mistake.

8 Word problems Choose the operations you need. Show your working.

- 1 A school buys 36 boxes of pencils. Each box holds 24 pencils. How many pencils is that altogether?

- 2 A farmer has 1,250 eggs. He packs them into boxes of 6. How many full boxes can he make, and how many eggs are left over?

- 3 A coat costs £64. In a sale it is 25% off. What is the sale price?

Answer Key

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Question	Answers
1 Column addition and subtraction	1 $456 + 327 = 783$; 2 $2,385 + 1,947 = 4,332$; 3 $803 - 458 = 345$; 4 $6,000 - 2,716 = 3,284$
2 Multiplication	1 1,458 ; 2 6,028 ; 3 1,026 ; 4 13,992
3 Short division	1 213 ; 2 627 ; 3 903 ; 4 54
4 Decimals	1 6.15 ; 2 3.62 ; 3 4.2 ; 4 450 ; 5 3.64 ; 6 2.98
5 Percentages	1 34 ; 2 20 ; 3 23 ; 4 6 ; 5 90 ; 6 9
6 Order of operations	1 23 ; 2 35 ; 3 17 ; 4 26
7 Explain	1. She added first. Multiplication must be done before addition: $4 \times 5 = 20$, then $3 + 20 = 23$.
8 Word problems	1. $36 \times 24 = 864$ pencils 2. $1,250 \div 6 = 208$ remainder 2, so 208 full boxes and 2 eggs left over. 3. 25% of £64 = £16; £64 – £16 = £48

Teaching note: sections build from Year 3–4 (column addition and subtraction, short multiplication) through Year 5 (long multiplication, short division, decimals, percentages) to Year 6 (order of operations). Award the method as well as the answer when marking.