

MATH HELP

GRADE 4

NEW EDITION

CAPS



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Index

1	Count, arrange and compare whole numbers	2
2	Number sentences	17
3	Addition and subtraction	20
4	Numeric and geometric patterns	29
5	Time	35
6	Multiplication and division	52
7	Data handling	65
8	2D shapes	68
9	Common fractions	70
10	Length	82
11	3D objects	88
12	Symmetry	91
13	Capacity and volume	92
14	Look at shapes (views)	97
15	Mass	98
16	Perimeter, area, and volume	103
17	Position and movement (cross references)	106
18	Transformations	107
19	Probability	111
20	Money	113

CHAPTER 1: COUNT, ARRANGE AND COMPARE WHOLE NUMBERS

WRITE NUMBERS

Group in groups of 3:

D **H** **T** **E**

Example

Write **2 698** in words:

Two thousand, six hundred and ninety-eight

Example

Write **5 600** in words:

Five thousand six hundred

1	one	10	ten	100	one hundred	1 000	one thousand
2	two	20	twenty	200	two hundred	2 000	two thousand
3	three	30	thirty	300	three hundred	3 000	three thousand
4	four	40	forty	400	four hundred	4 000	four thousand
5	five	50	fifty	500	five hundred	5 000	five thousand
6	six	60	sixty	600	six hundred	6 000	six thousand
7	seven	70	seventy	700	seven hundred	7 000	seven thousand
8	eight	80	eighty	800	eight hundred	8 000	eight thousand
9	nine	90	ninety	900	nine hundred	9 000	nine thousand
						10 000	ten thousand

READ NUMBERS

Example

1 628

One thousand six hundred and twenty-eight

Example

6 345

Six thousand three hundred and forty-five

COUNT FORWARD OR BACK

Plus, or minus under each other:

Example

Count forward in 120's, start at 3 225:

$$\begin{array}{r} 3 \quad 2 \quad 2 \quad 5 \\ + \quad 1 \quad 2 \quad 0 \\ \hline 3 \quad 3 \quad 4 \quad 5 \\ + \quad 1 \quad 2 \quad 0 \\ \hline 3 \quad 4 \quad 6 \quad 5 \end{array}$$

3 225; 3 345; 3 465...

CHAPTER 2: NUMBER SENTENCES

Math also has opposites

Plus, and minus are opposites. It

means:

$$3 + 2 = 5 \text{ so } 5 - 2 = 3 \text{ and } 5 - 3 = 2$$

A plus sum can be controlled by a minus sum.

Minus, and plus are opposites. It means:

$$3 - 2 = 1 \text{ so } 1 + 2 = 3$$

A minus sum can be controlled by a plus sum.

Multiply and divide are opposites. It

means:

$$3 \times 2 = 6 \text{ so } 6 \div 2 = 3 \text{ and } 6 \div 3 = 2$$

A multiplication sum can be controlled by a divide sum.

Divide and multiply are opposites. It means:

$$6 \div 2 = 3 \text{ so } 3 \times 2 = 6$$

A divide sum can be controlled by a multiplication sum.

CHAPTER 3: ADDITION AND SUBTRACTION

ADDITION (+)

Without carry-over

1. $\begin{array}{r} \text{T} \quad \text{U} \\ 4 \quad 2 \\ + 1 \quad 5 \\ \hline 5 \quad 7 \end{array}$ First add all the **units** below each other, and then all the **tens** below each other. ALWAYS work from behind!

2. $\begin{array}{r} \text{T} \quad \text{U} \\ 4 \quad 2 \\ + 1 \quad 5 \\ \hline 5 \quad 7 \end{array}$

3. $\begin{array}{r} \text{H} \quad \text{T} \quad \text{U} \\ 3 \quad 2 \quad 1 \\ + 1 \quad 2 \quad 3 \\ \hline 4 \quad 4 \quad 4 \end{array}$ First add all the **units** below each other, then all the **tens** below each other, and then all the **hundreds** below each other. ALWAYS work from behind!

4. $\begin{array}{r} \text{H} \quad \text{T} \quad \text{U} \\ 4 \quad 8 \quad 2 \\ + 3 \quad 1 \quad 5 \\ \hline 7 \quad 9 \quad 7 \end{array}$

5. $\begin{array}{r} \text{T} \quad \text{H} \quad \text{T} \quad \text{U} \\ 1 \quad 8 \quad 5 \quad 6 \\ + 8 \quad 1 \quad 1 \quad 2 \\ \hline 9 \quad 9 \quad 6 \quad 8 \end{array}$

6. $\begin{array}{r} \text{T} \quad \text{H} \quad \text{T} \quad \text{U} \\ 7 \quad 8 \quad 9 \quad 0 \\ + 2 \quad 1 \quad 0 \quad 8 \\ \hline 9 \quad 9 \quad 9 \quad 8 \end{array}$

SUBTRACTION (-)

Without borrowing

1. $\begin{array}{r} \text{T} \quad \text{U} \\ 4 \quad 2 \\ - 1 \quad 1 \\ \hline 3 \quad 1 \end{array}$ First subtract all the **units** below each other, and then all the **tens** below each other. ALWAYS work from behind!

2. $\begin{array}{r} \text{T} \quad \text{U} \\ 8 \quad 9 \\ - 1 \quad 5 \\ \hline 7 \quad 4 \end{array}$

3. $\begin{array}{r} \text{H} \quad \text{T} \quad \text{U} \\ 3 \quad 2 \quad 1 \\ - 1 \quad 2 \quad 1 \\ \hline 2 \quad 0 \quad 0 \end{array}$ First add all the **units** below each other, then all the **tens** below each other, and then all the **hundreds** below each other. ALWAYS work from behind!

4. $\begin{array}{r} \text{H} \quad \text{T} \quad \text{U} \\ 4 \quad 8 \quad 5 \\ - 3 \quad 1 \quad 2 \\ \hline 1 \quad 7 \quad 3 \end{array}$

5. $\begin{array}{r} \text{T} \quad \text{H} \quad \text{T} \quad \text{U} \\ 8 \quad 8 \quad 5 \quad 6 \\ - 1 \quad 1 \quad 1 \quad 2 \\ \hline 7 \quad 7 \quad 4 \quad 4 \end{array}$

6. $\begin{array}{r} \text{T} \quad \text{H} \quad \text{T} \quad \text{U} \\ 7 \quad 8 \quad 9 \quad 8 \\ - 2 \quad 1 \quad 0 \quad 0 \\ \hline 5 \quad 7 \quad 9 \quad 8 \end{array}$

CHAPTER 4: NUMERIC AND GEOMETRIC PATTERNS

COMPLETE THE PATTERN

Count forward

If you count forward it's $a +$ or x .

To determine what we are counting in, take the 2nd number minus the 1st number. Make sure the 3rd number minus the 2nd number gives the same answer.

Example

Write the following 3 numbers in each row:

2 7 12 17

$$2^{\text{nd}} - 1^{\text{st}} = 7 - 2 = 5$$

$$3^{\text{rd}} - 2^{\text{nd}} = 12 - 7 = 5$$

It means we are counting in 5's:

2, 7, 12, 17, 22, 27, 32...

Example

Write the following 3 numbers in each row:

102 203 304 405

$$2^{\text{nd}} - 1^{\text{st}} = 203 - 102 = 101$$

$$3^{\text{rd}} - 2^{\text{nd}} = 304 - 203 = 101$$

It means we are counting in 101's:

102, 203, 304, 405, 506, 607, 708...

CHAPTER 5: TIME

ANALOGUE AND DIGITAL TIME

The **long hand** shows the **minutes**, and the **shorthand** shows the **hours**. Count in 5's for minutes.



Watch	Analogue time	Digital time
	The long hand is on the 1 (5 minutes past) . The shorthand (hours) is on the 10 . It's now 5 past 10 .	The long hand is on the 1 (5 minutes past) . The shorthand (hours) is on the 10 . am: 10:05 . pm: 22:05
	The long hand is on the 2 (10 minutes past) . The shorthand (hours) is on the 10 . It's 10 past 10 .	The long hand is on the 2 (10 minutes past) . The shorthand (hours) is on the 10 . am: 10:10

CHAPTER 6: MULTIPLICATION AND DIVISION

MULTIPLICATION (X)

Multiplication is the same as repeated addition:

$$2 + 2 + 2 + 2 + 2 + 2 = 2 \times 6 = 12$$

Count 6 times in 2's. Where do you end up?

Multiplication tables are very important!

Without carry-over

$$\begin{array}{r} 1. \quad \text{T} \quad \text{U} \\ \quad 3 \quad 2 \\ \times \quad \quad 2 \\ \hline \quad 6 \quad 4 \\ \hline \end{array}$$

$$2 \times 2 = 4$$

$$3 \times 2 = 6$$

$$\begin{array}{r} 2. \quad \text{T} \quad \text{U} \\ \quad 2 \quad 3 \\ \times \quad \quad 3 \\ \hline \quad 6 \quad 9 \\ \hline \end{array}$$

$$3 \times 3 = 9$$

$$2 \times 3 = 6$$

Long division

÷ x - ↓

$$\begin{array}{r} 1. \quad 4 \quad 2 \\ 2 \overline{) 8 \quad 4} \\ - 8 \quad \downarrow \\ \hline . \quad 4 \\ - 4 \\ \hline . \end{array}$$

$$\begin{array}{l} 8 \div 2 = 4 \\ 4 \times 2 = 8 \\ 8 - 8 = . \quad \downarrow 4 \\ 4 \div 2 = 2 \\ 2 \times 2 = 4 \\ 4 - 4 = . \end{array}$$

$$\begin{array}{r} 2. \quad 3 \quad 2 \\ 3 \overline{) 9 \quad 6} \\ - 9 \quad \downarrow \\ \hline . \quad 6 \\ - 6 \\ \hline . \end{array}$$

$$\begin{array}{l} 9 \div 3 = 3 \\ 3 \times 3 = 9 \\ 9 - 9 = . \quad \downarrow 6 \\ 6 \div 3 = 2 \\ 2 \times 3 = 6 \\ 6 - 6 = . \end{array}$$

$$\begin{array}{r} 3. \quad 4 \quad 2 \quad 3 \\ 2 \overline{) 8 \quad 4 \quad 6} \\ - 8 \quad \downarrow \\ \hline . \quad 4 \quad \downarrow \\ - 4 \quad \downarrow \\ \hline . \quad 6 \\ - 6 \\ \hline . \end{array}$$

$$\begin{array}{l} 8 \div 2 = 4 \\ 4 \times 2 = 8 \\ 8 - 8 = . \quad \downarrow 4 \\ 4 \div 2 = 2 \\ 2 \times 2 = 4 \\ 4 - 4 = . \quad \downarrow 6 \\ 6 \div 2 = 3 \\ 3 \times 2 = 6 \\ 6 - 6 = . \end{array}$$



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