Name _____ Date _____

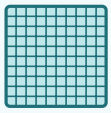
Building numbers

Build numbers to 1,000 and find what each digit is worth.

1 Learn



A digit's **place** tells you what it's worth. In **243**, the 2 is worth 200, the 4 is worth 40 and the 3 is worth 3.



hundred = 100



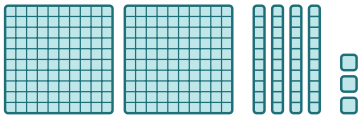
ten = 10



one = 1

Schools call these blocks **Dienes**.

Example: build 243

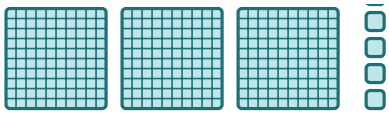


Hundreds	Tens	Ones
2	4	3

200 + 40 + 3 = 243

two hundred and forty-three

The **4** is in the tens place: it's worth **40**.



What about 305?

3 hundreds, **0 tens** and 5 ones. The **0** holds the tens place, so the 3 stays a hundreds digit. Without it, we'd have 35: a much smaller number!

Flip's tip: zero is a placeholder. It's worth nothing on its own, but it keeps the other digits in the right places.

Warm up: what is the **6** worth in each number?

562: ☐ 615: ☐ 386: ☐

Grown-ups: point to each digit of 243 and ask "What is this one worth?" Then try it with your house number or a page number in a book.

Name _____ Date _____

2 Try it together a child and a grown-up, about 10 minutes



Digit card shuffle

You need: a scrap of paper torn into 3 small cards, and a pencil.

1. Write a different digit from **1 to 9** on each card.
2. Put the cards in a row to make a 3-digit number. Read it aloud and write it in the table.
3. Swap the cards round to make a new number. Keep going: you can make **6** different numbers!
4. Partition each number, like 243 = 200 + 40 + 3.
5. Ring the biggest number. Then write all 6 in order, smallest first.

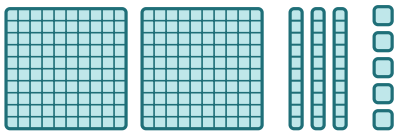
Number	Partitioned	Number	Partitioned
	_____ + _____ + _____		_____ + _____ + _____
	_____ + _____ + _____		_____ + _____ + _____
	_____ + _____ + _____		_____ + _____ + _____

Smallest to biggest: _____, _____, _____, _____, _____, _____

Grown-ups: point to a card and ask "What is it worth in this number?" The same digit is worth more when it moves left. To order, compare the hundreds first, then the tens.

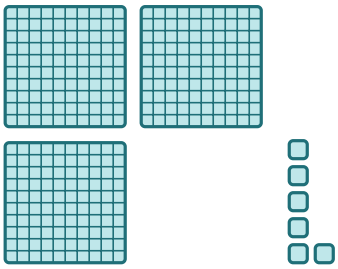
3 Practise

A. Write the hundreds, tens and ones, then the number the blocks show.



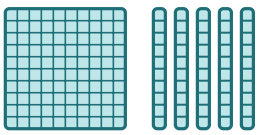
H	T	O

= _____



H	T	O

= _____



H	T	O

= _____

Building numbers

Scan to play this chapter in the game

Name _____ Date _____

B. What is the <u>underlined</u> digit worth?

248	715	389	507	460
worth ☐	worth ☐	worth ☐	worth ☐	worth ☐

C. Partition. Fill the boxes.

572 = ☐ + ☐ + ☐

309 = 300 + ☐

☐ + 60 + 4 = 864

243 = 200 + 30 + ☐

D. Write in numbers or words.

four hundred and seventy-two ☐

six hundred and five ☐

318 _____

940 _____

E. Compare: write **<**, **>** or **=**.

452 ☐ **425** **309** ☐ **390**

700 ☐ **699** **42 tens** ☐ **420**

Then order these, smallest first.

513 **153** **531** **315**

_____, _____, _____, _____

Challenge

Ava says, "305 and 35 are the same number, because zero is worth nothing." Is she right? Explain.

_____

_____

_____

I can... Tick when you can.

- ☐ say what each digit in a number like 248 is worth
- ☐ partition a number, like 243 = 200 + 40 + 3
- ☐ read, write and compare numbers to 1,000