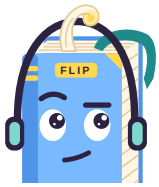
Name _____ Date _____

# The deciding digit

One digit decides whether a number rounds up or down.

## 1 Learn




Drawing a hill every time takes a while. Here's a shortcut: look at the digit just to the **right** of the place you're rounding to. That's the **deciding digit**.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|

**0 to 4: round down**
the tens digit stays the same

**5 to 9: round up**
the tens digit goes up by 1

| H | T | O |
|---|---|---|
| 3 | 4 | 7 |

tens place in yellow, deciding digit ringed

**Round 347 to the nearest 10**

1. We're rounding to the nearest 10, so find the tens digit: **4**.
2. The deciding digit is just to its right: **7**.
3. 7 is 5 or more, so round **up**: the tens digit goes from 4 to 5.
4. The digit after it becomes 0.

347 rounds to **350**. But 342 rounds to **340**.

**Flip's tip:** rounding **down** doesn't make the tens digit smaller. It stays the same, and the ones digit becomes 0: 342 rounds to 340.

**Warm up:** draw a ring round the deciding digit for rounding to the nearest 10.

**63** **218** **4,507** **1,995**

**Grown-ups:** if "round down" sounds like the number should get smaller, say "stay" instead: 0 to 4 means the tens digit stays, 5 to 9 means it goes up one.

Name _____ Date _____

## 2 Try it together

a child and a grown-up, about 10 minutes



### Decider draw

**You need:** 10 scraps of paper with the digits 0 to 9 on them, a cup or bowl, and a pencil.

1. Fold the scraps and put them in the cup.
2. Pick three scraps to make a 3-digit number. (If 0 comes first, put it back and pick again.) Write the number in the table.
3. Ring the deciding digit. Say "up" or "down", then round to the nearest 10.
4. The grown-up checks by saying the tens either side. Swap turns. Last round: pick four scraps for a 4-digit number.

| Number | Deciding digit | Up or down? | Nearest 10 |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

**Grown-ups:** if a 9 is in the tens, like 396, rounding up changes the hundreds too: 39 tens become 40 tens, so 396 rounds to 400.

## 3 Practise

**A.** Ring the deciding digit. Ring **up** or **down**. Then round to the nearest 10.

**52**

Ring: (up) (down)

rounds to _____

**87**

Ring: (up) (down)

rounds to _____

**125**

Ring: (up) (down)

rounds to _____

**364**

Ring: (up) (down)

rounds to _____

**1,738**

Ring: (up) (down)

rounds to _____

**2,095**

Ring: (up) (down)

rounds to _____

# The deciding digit



Name _____ Date _____

**B.** Round each number to the nearest 10. Write it in the right box.

**118 124 125 127 115 134 121 129**

| Rounds to 120 | Rounds to 130 |
|---|---|
| | |

**C.** Write a digit in each box so the rounding is right. Can you find every digit that works?

**6 ☐ rounds to 60**

**5 ☐ rounds to 60**

**23 ☐ rounds to 230**

**1,4 ☐ 7 rounds to 1,450**



**D.** Mystery number. I am between 60 and 70. Rounded to the nearest 10, I am 70. My ones digit is odd and less than 7. What am I?

I am _____

## Challenge

Ava is rounding 1,347 to the nearest 10. She says, "The deciding digit is 4, so it rounds down to 1,340." Is she right? Explain.



**I can...** Tick when you can.

- ☐ find the deciding digit
- ☐ say that 0 to 4 round down and 5 to 9 round up
- ☐ round 2-, 3- and 4-digit numbers to the nearest 10