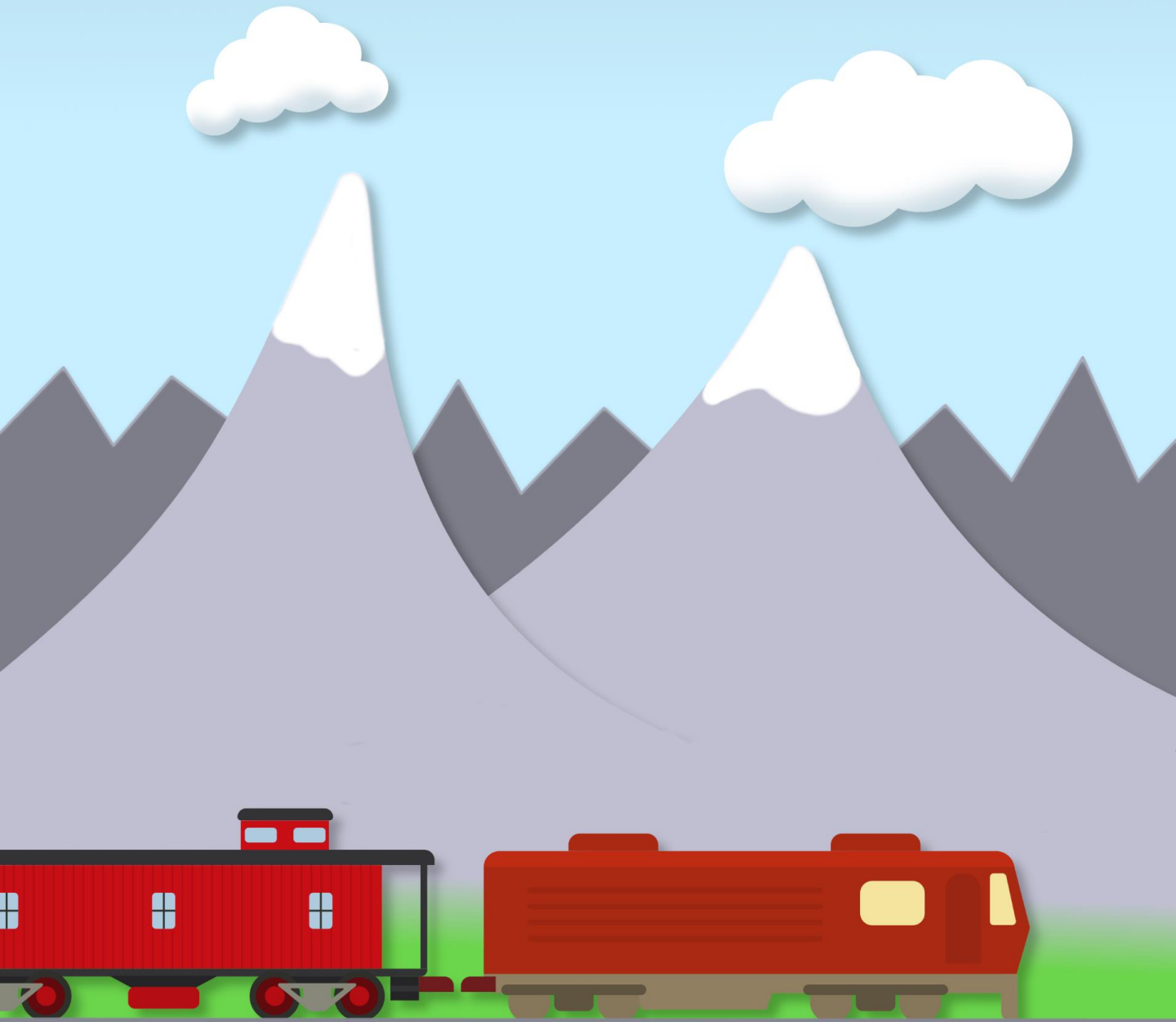


The Rounding Train

Rounding to the Nearest Ten and Hundred



Created by *Positively Autism*

Making Learning Fun and Meaningful for Children with Autism

Rounding to the Nearest Ten and Hundred

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Estimating or Exact Amount?

Many times when doing math, we need to know an exact answer.

For example, when we buy something online, we often have to pay sales tax and shipping. The website will calculate the tax and shipping, so we know the total amount we have to pay.

Here's an example from buying a book online:

Order Summary

Item(s) Subtotal:	\$17.99
Shipping & Handling:	\$4.98
Total before tax:	\$22.97
Estimated tax to be collected:	\$1.55
Grand Total:	\$24.52

In this case, I want to know the exact amount. My debit card will be charged \$24.52 right now, so I need to make sure I have enough money in my bank account to pay this exact amount right now.

There are also times where we might not need to know the exact amount. Let's talk about those next.

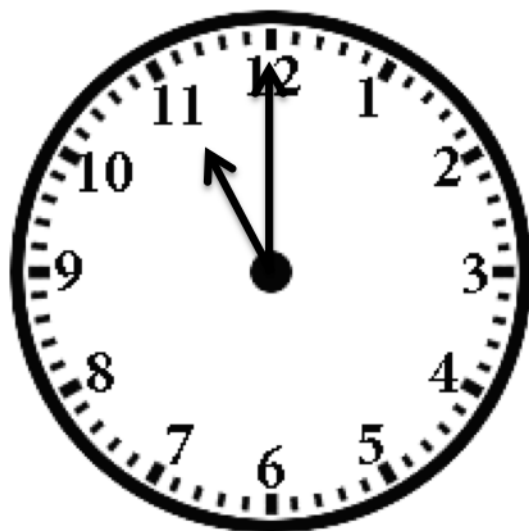
Estimating or Exact Amount?

Page 2

Sometimes, it might be easier to make an estimate instead of knowing an exact amount.

An estimate is a good guess as to what an amount or number of something is.

We might use an estimate if we don't know exactly how long something will take. As an example, a meeting might last for about an hour. It could be 55 minutes, 70 minutes, or some other time. If we say that the meeting will last for "about an hour," it gives us a good guess for how long the meeting will take if we're not sure.



Estimating or Exact Amount?

Page 3

Let's look at another example. If we are saving up money for a large purchase, such as a car, we might not need to know a specific amount, such as \$21,300.55.

Setting a goal of saving "about \$20,000" would work fine until you're almost ready to buy the car and need to know the exact amount.



When we're doing a math problem, we might want to estimate instead of using more specific numbers.

For example, it's easier to make an estimate of adding $50 + 50$, rather than calculating $48 + 53$.

One way to make these numbers easier to work with is by rounding them. In this lesson, we'll talk about rounding numbers.

$$48 \xrightarrow{\text{rounds to}} 50$$

$$53 \xrightarrow{\text{rounds to}} 50$$

Rounding
to the
Nearest Ten

Rounding by 10

One way that we can round numbers is rounding to the nearest 10. To round a number to the nearest 10, we have to think about counting by 10s.

10 20 30 40 50 60 70 80 90 100

In this lesson, we'll call each of these numbers a "ten."

The first step to rounding a number is to figure out the "ten" that is above and below the number.

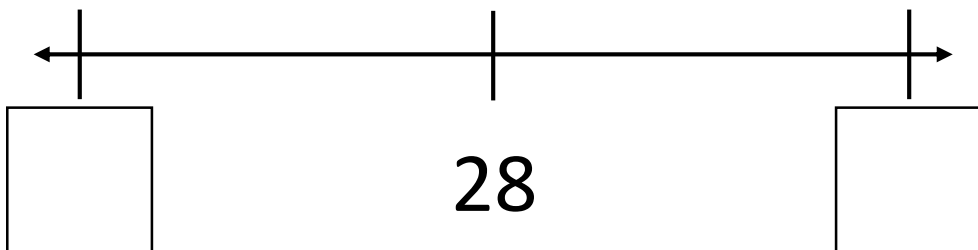
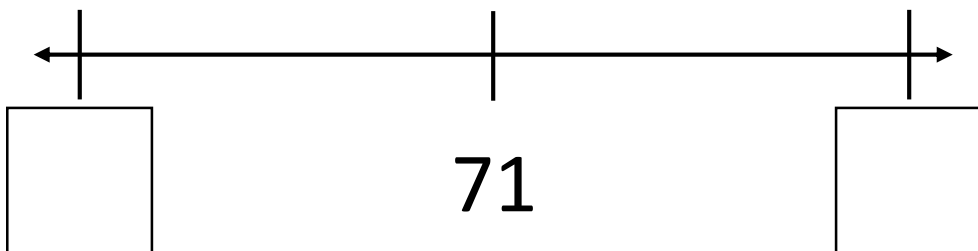
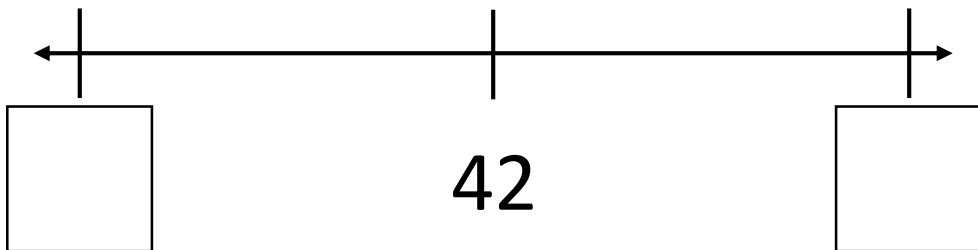
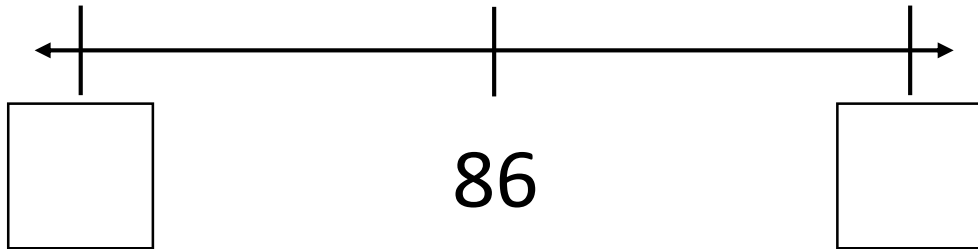
Let's look at an example for the number 24.

$\frac{20}{\text{10 below}}$	$\frac{24}{\text{number}}$	$\frac{30}{\text{10 above}}$
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You'll try some of these on the next page.

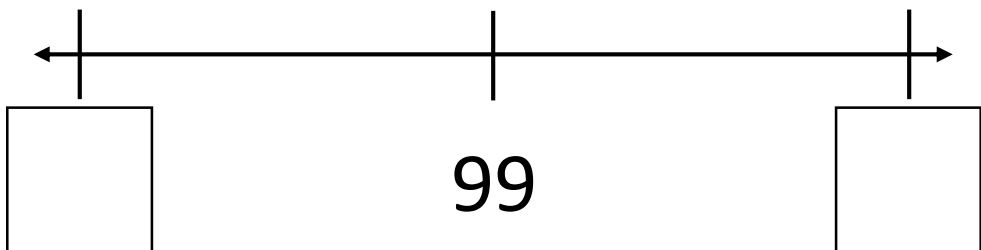
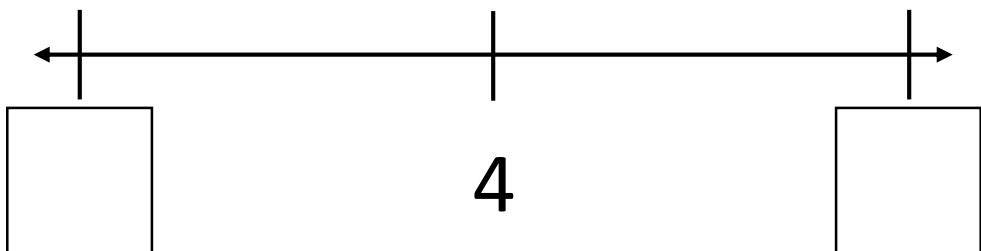
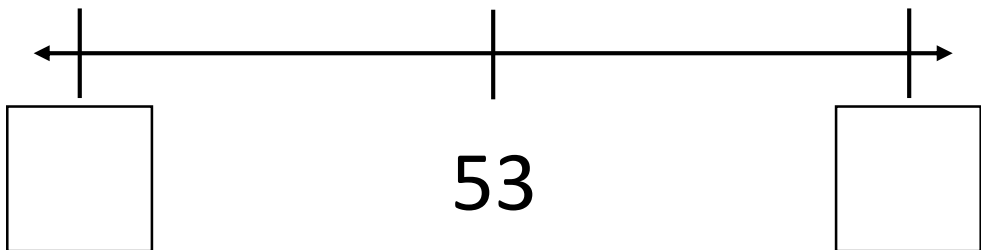
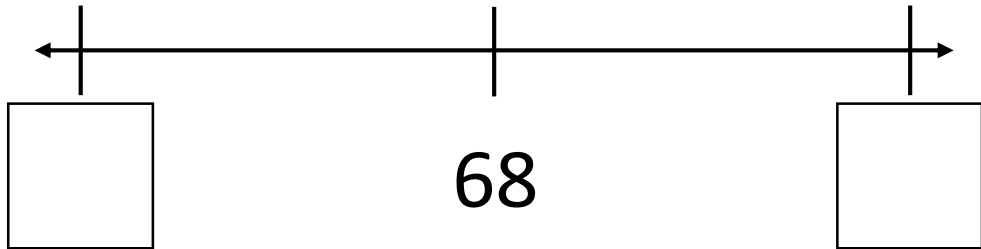
Rounding by 10

For each number, write the “ten” that is above and below the number.



Rounding by 10

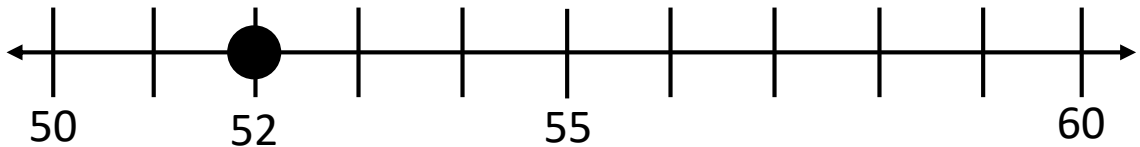
For each number, write the “ten” that is above and below the number.



Rounding by 10

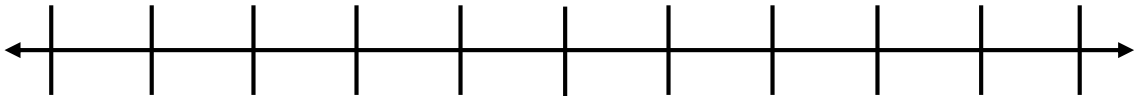
Once we've figured out the ten above and the ten below, we have to see which "ten" our number is closer to.

Round 52 to the nearest 10.



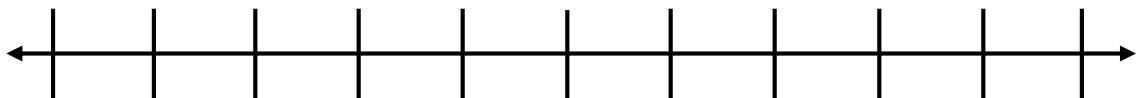
52 is closest to 50.

Round 87 to the nearest 10.



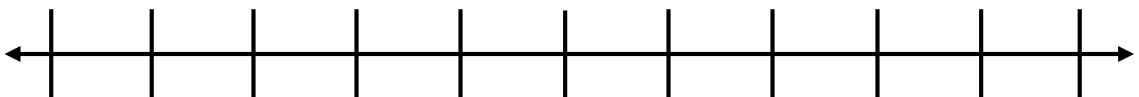
87 is closest to _____.

Round 44 to the nearest 10.



44 is closest to _____.

Round 29 to the nearest 10.

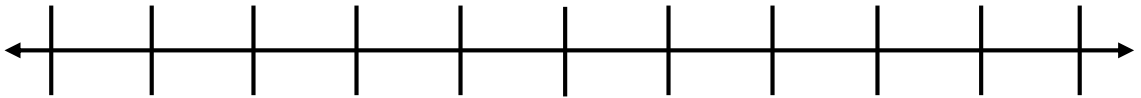


29 is closest to _____.

Rounding by 10

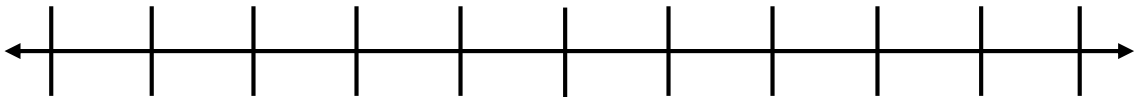
Once we've figured out the ten above and the ten below, we have to see which "ten" our number is closer to.

Round 14 to the nearest 10.



14 is closest to _____.

Round 68 to the nearest 10.

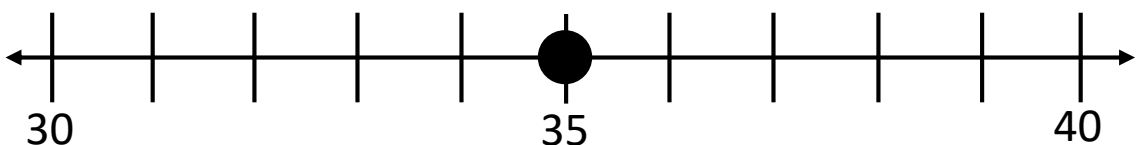


68 is closest to _____.

It's a little different if our number ends with a 5, like the number 35.

When the number ends in 5, we round "up" to the higher ten.

Round 35 to the nearest 10.



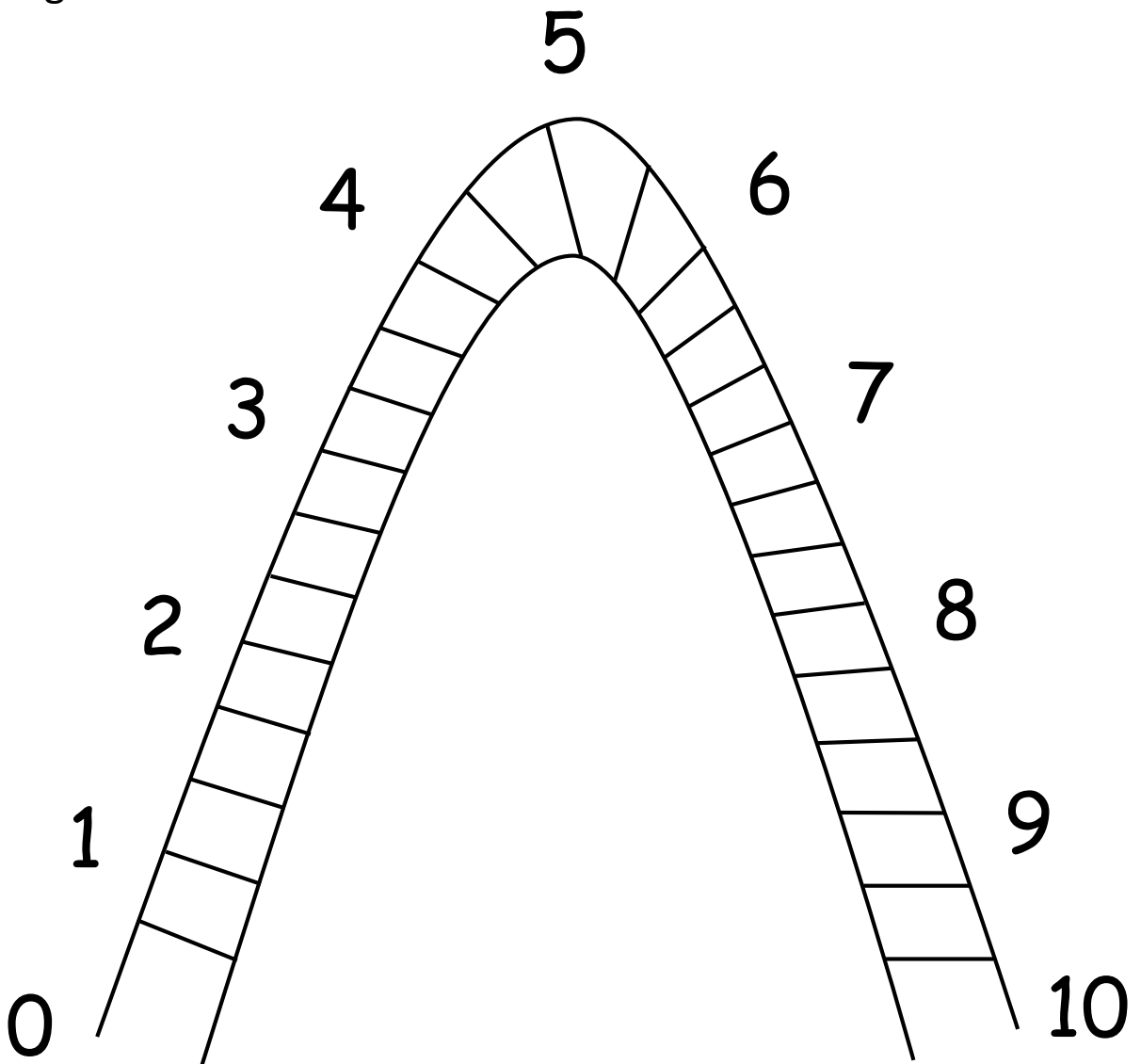
35 rounds to 40.

Rounding by 10

Let's look at rounding in a different way. Take one of the train pieces and write a number from 1 to 9 on it. Place it next to that number on the train track going over a mountain.

If your number is 1 to 4, it can't get to the top of the hill, so it rolls back down to the lower ten.

If your number is 5 or higher it can roll down the hill to higher ten.

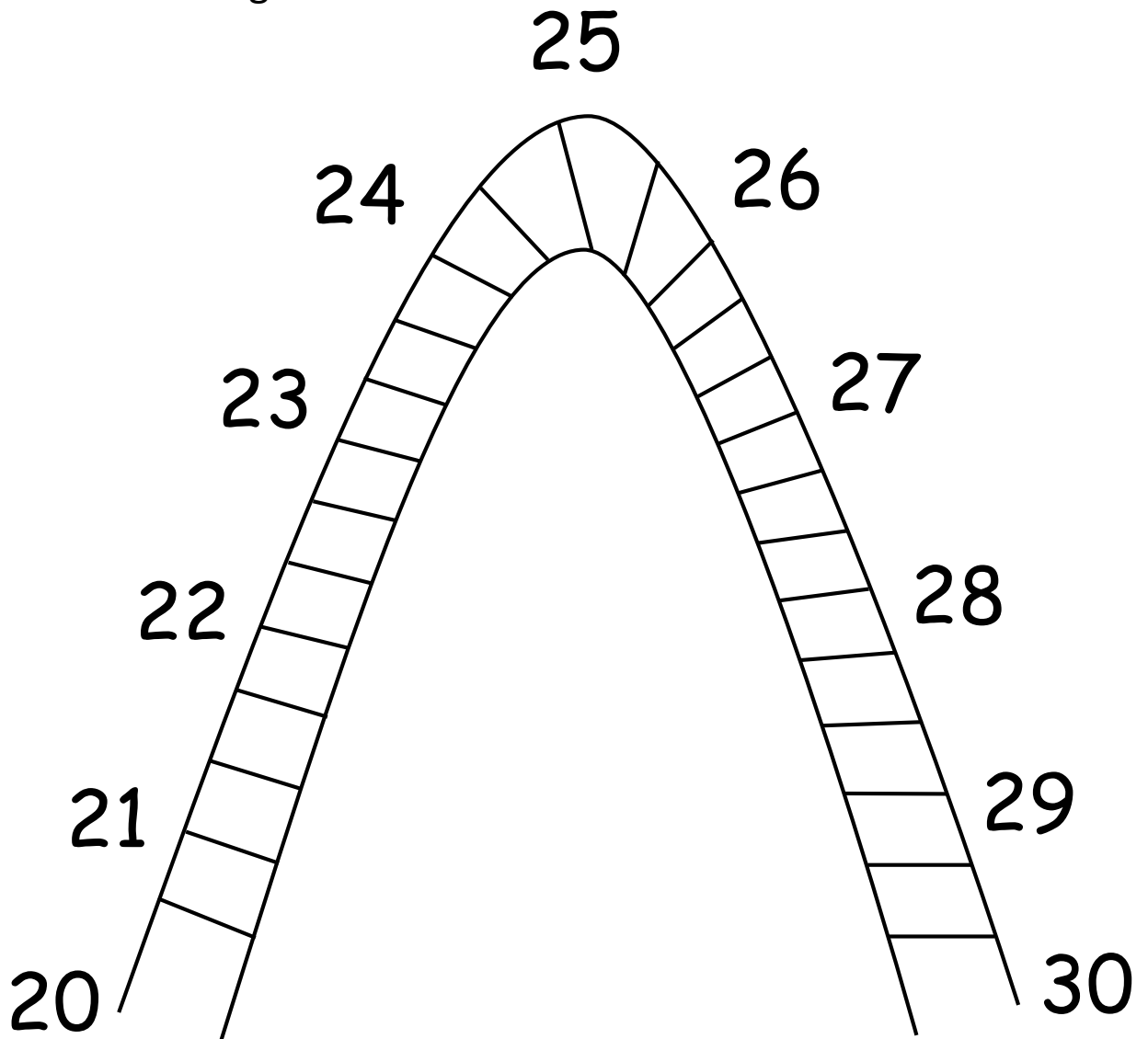


Rounding by 10

Now, you'll try it with some different numbers. Take one of the train pieces and write a number from 20 to 29 on it. Place it next to that number on the train track going over a mountain.

If your number ends in 1 to 4, it can't get to the top of the hill, so it rolls back down to the lower ten.

If your number ends in a number 5 or higher it can roll down the hill to higher ten.

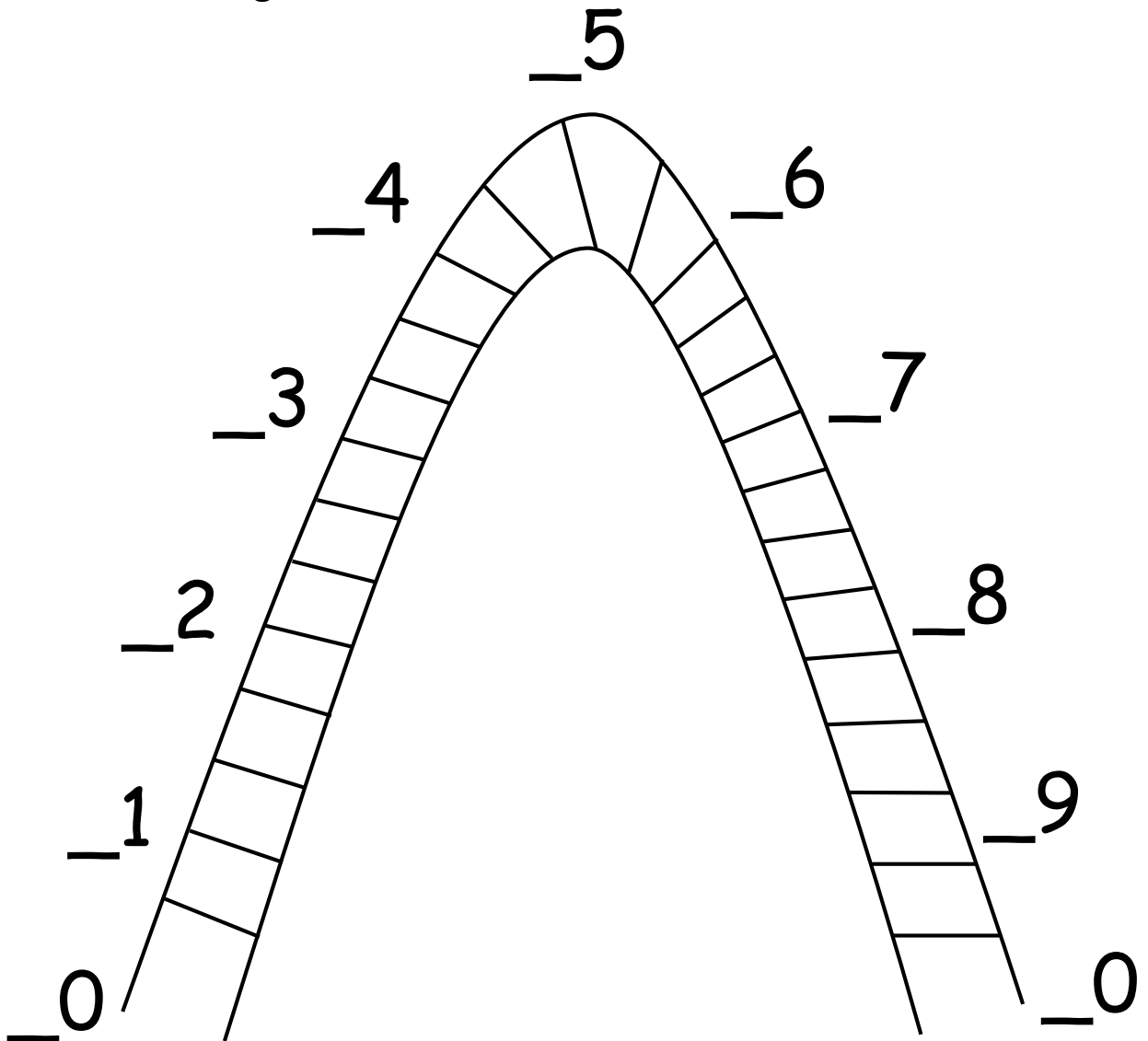


Rounding by 10

Now, you can make up the range of numbers. Take one of the train pieces and write a number from _____ to _____ on it. Place it next to that number on the train track going over a mountain.

If your number ends in 1 to 4, it can't get to the top of the hill, so it rolls back down to the lower ten.

If your number ends in a number 5 or higher it can roll down the hill to higher ten.



Teacher note: have the student write numbers on as many trains and practice with the track as many times as needed for them to feel comfortable with this skill.

Name: _____ Date: _____

Rounding by 10

Round each number to the nearest 10.

33 _____

97 _____

25 _____

89 _____

6 _____

23 _____

61 _____

59 _____

72 _____

48 _____

14 _____

34 _____

77 _____

35 _____

29 _____

11 _____

19 _____

65 _____

Rounding
to the
Nearest Hundred

Rounding by 100

Another way that we can round numbers is rounding to the nearest hundred. To round a number to the nearest hundred, we have to think about counting by 100s.

100 200 300 400 500 600 700 800 900 1000

In this lesson, we'll call each of these numbers a "hundred."

The first step to rounding a number is to figure out the "hundred" that is above and below the number.

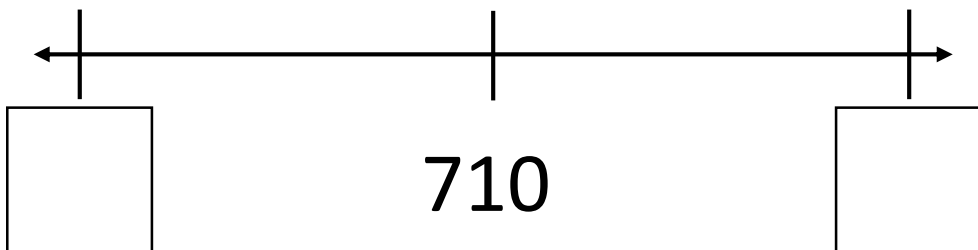
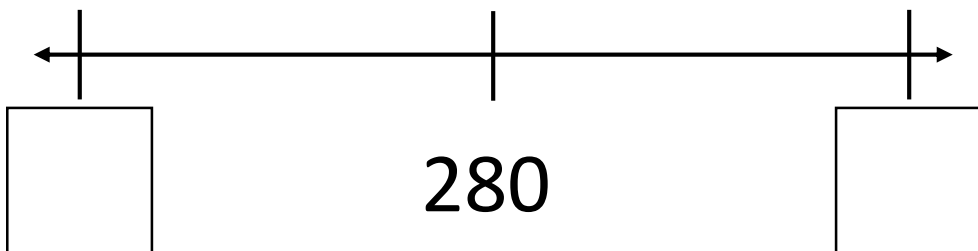
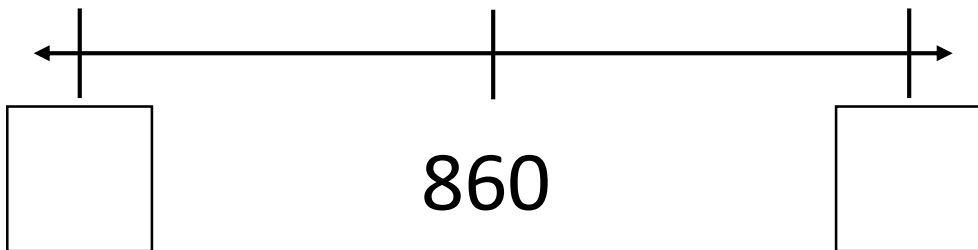
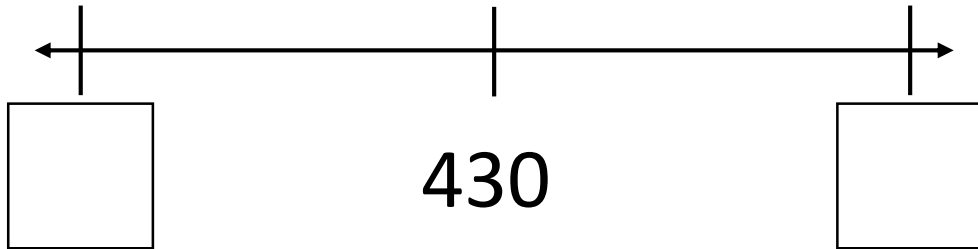
Let's look at an example for the number 430.

<u>400</u>	<u>430</u>	<u>500</u>
hundred below	number	hundred above

You'll try some of these on the next page.

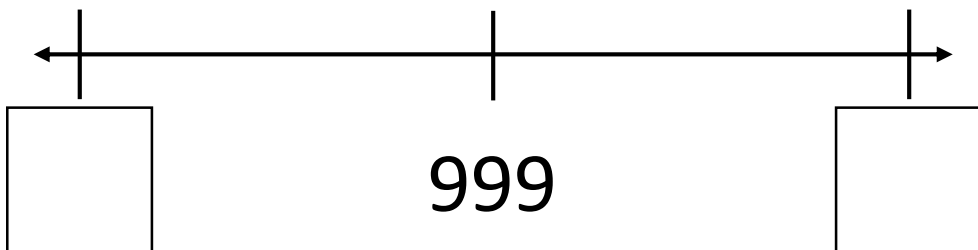
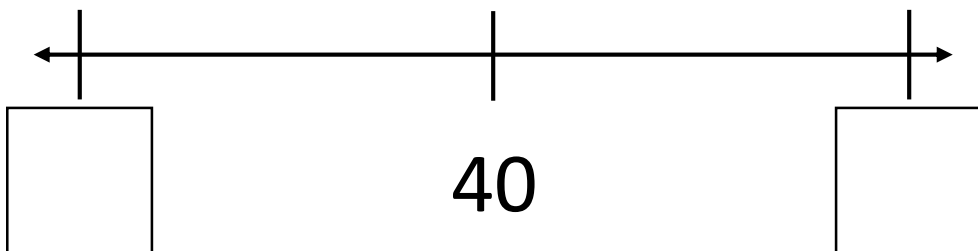
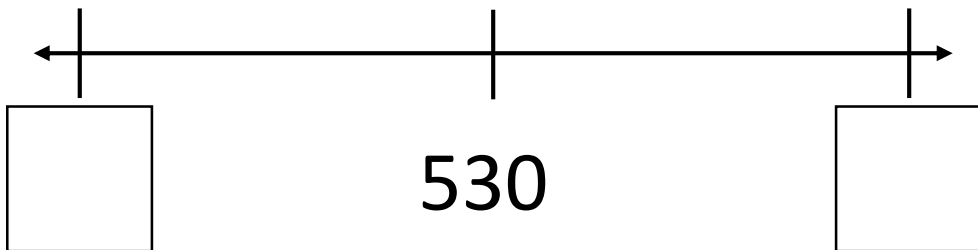
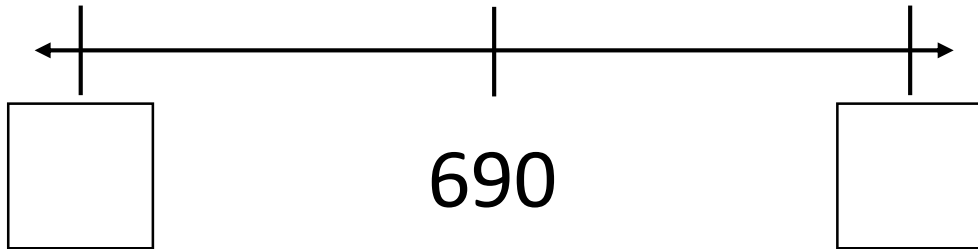
Rounding by 100

For each number, write the “hundred” that is above and below the number.



Rounding by 100

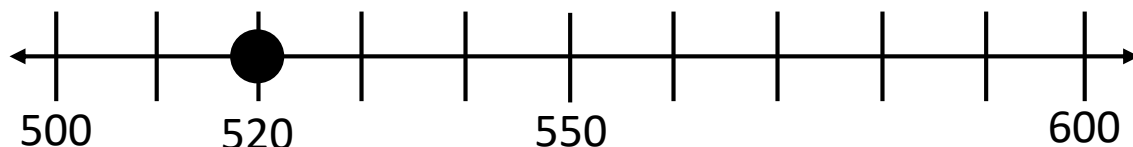
For each number, write the “hundred” that is above and below the number.



Rounding by 100

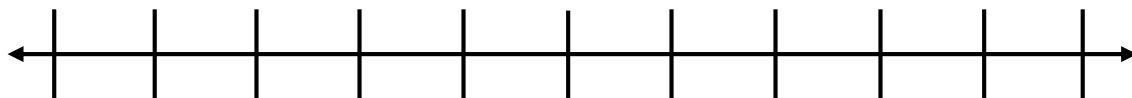
Once we've figured out the hundred above and the hundred below, we have to see which "hundred" our number is closer to.

Round 520 to the nearest 100.



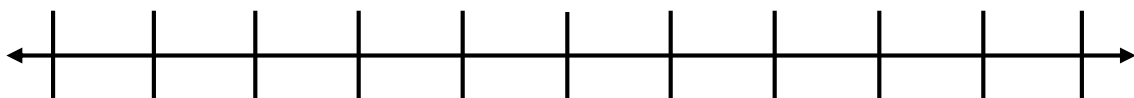
520 is closest to 500.

Round 870 to the nearest 100.



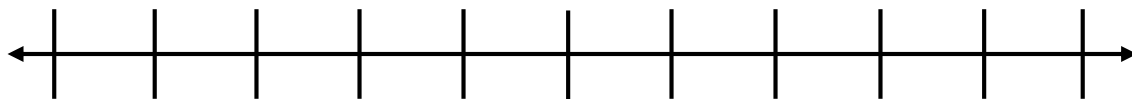
870 is closest to _____.

Round 440 to the nearest 100.



440 is closest to _____.

Round 290 to the nearest 100.

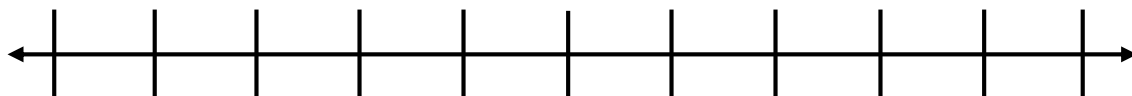


290 is closest to _____.

Rounding by 100

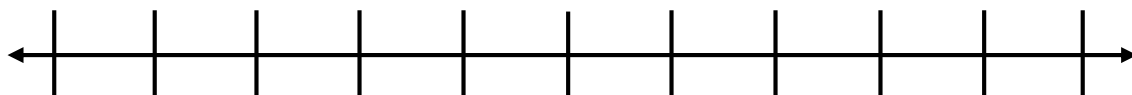
Once we've figured out the hundred above and the hundred below, we have to see which "hundred" our number is closer to.

Round 130 to the nearest 100.



130 is closest to _____.

Round 680 to the nearest 100.

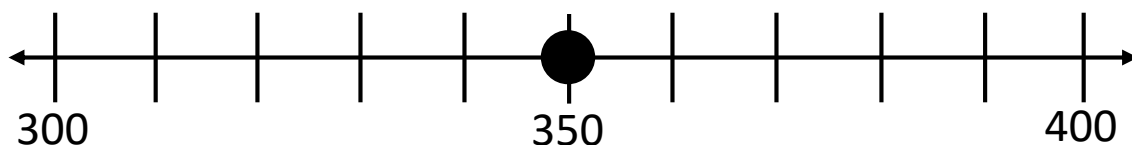


680 is closest to _____.

It's a little different if our number ends with 50, like the number 350.

When the number ends in 50, we round "up" to the higher hundred.

Round 350 to the nearest 100.



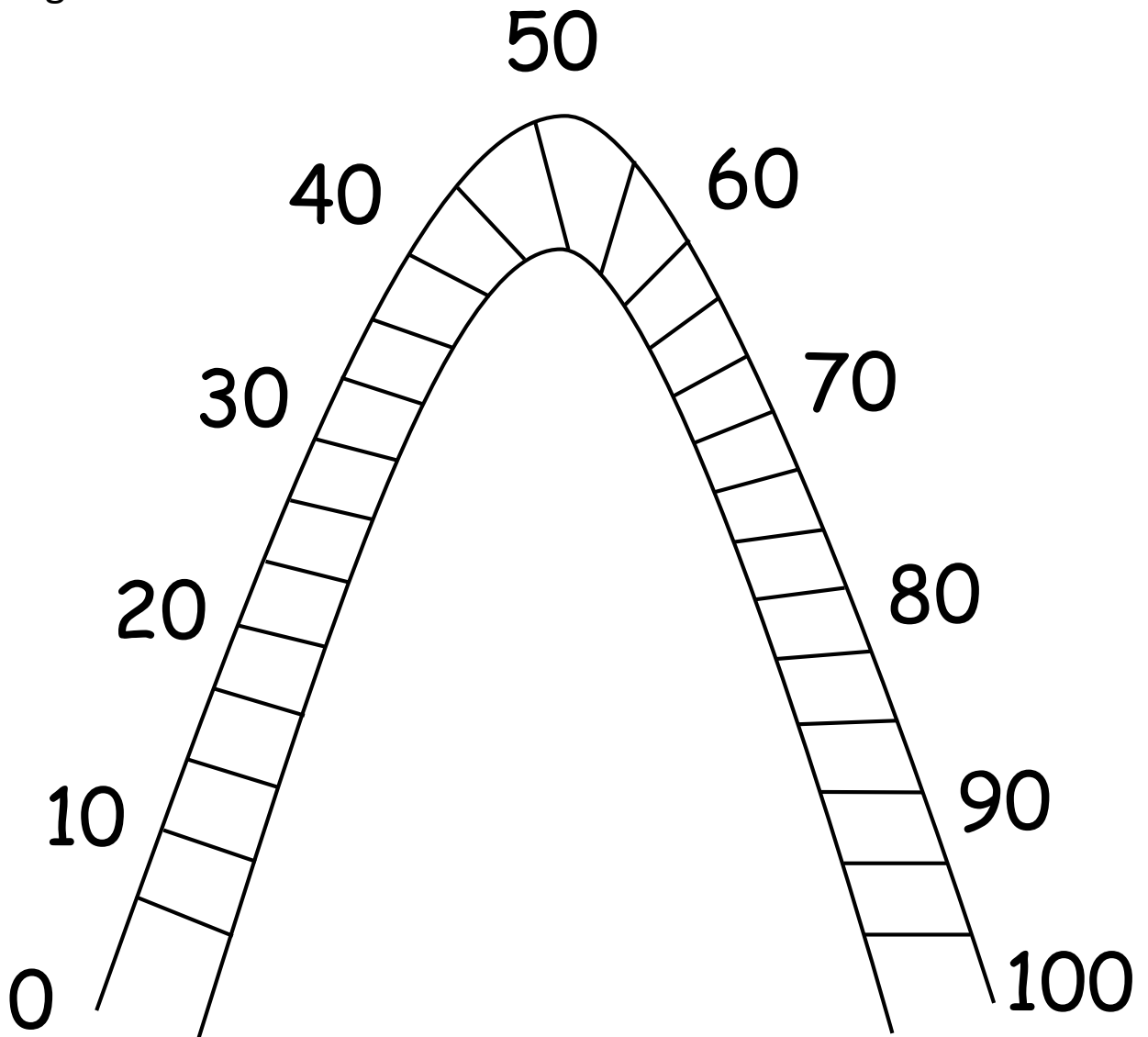
350 rounds to 400.

Rounding by 100

Let's look at rounding in a different way. Take one of the train pieces and write a number from 1 to 99 on it. Place it next to that number on the train track going over a mountain.

If your number is 0 to 49, it can't get to the top of the hill, so it rolls back down to the lower ten.

If your number is 50 or higher it can roll down the hill to higher ten.



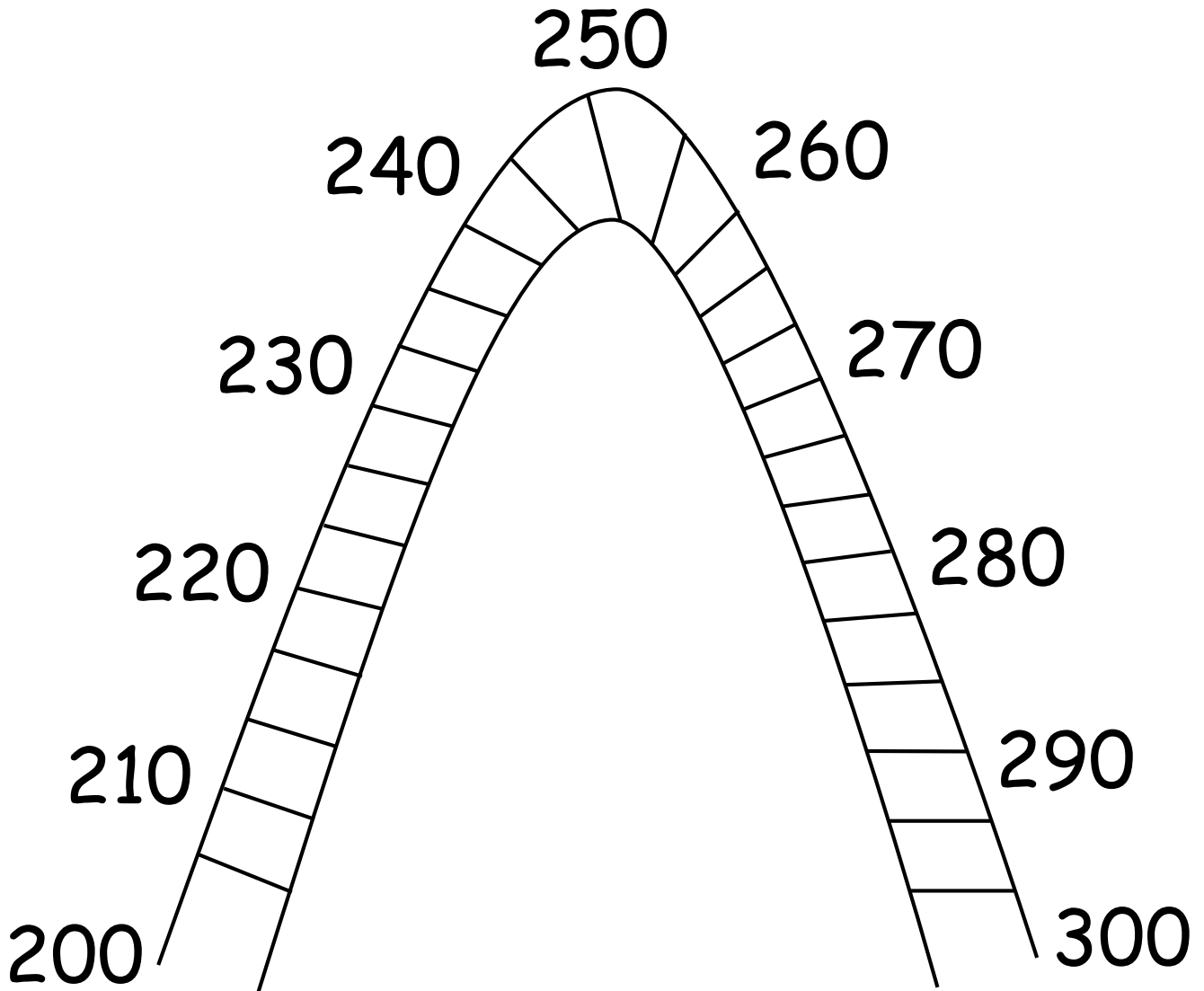
Teacher note: have the student write numbers on as many trains and practice with the track as many times as needed for them to feel comfortable with this skill.

Rounding by 100

Now, you'll try it with some different numbers. Take one of the train pieces and write a number from 201 to 299 on it. Place it next to that number on the train track going over a mountain.

If your number ends in 201 to 249, it can't get to the top of the hill, so it rolls back down to the lower ten.

If your number ends in a number 250 or higher it can roll down the hill to higher ten.

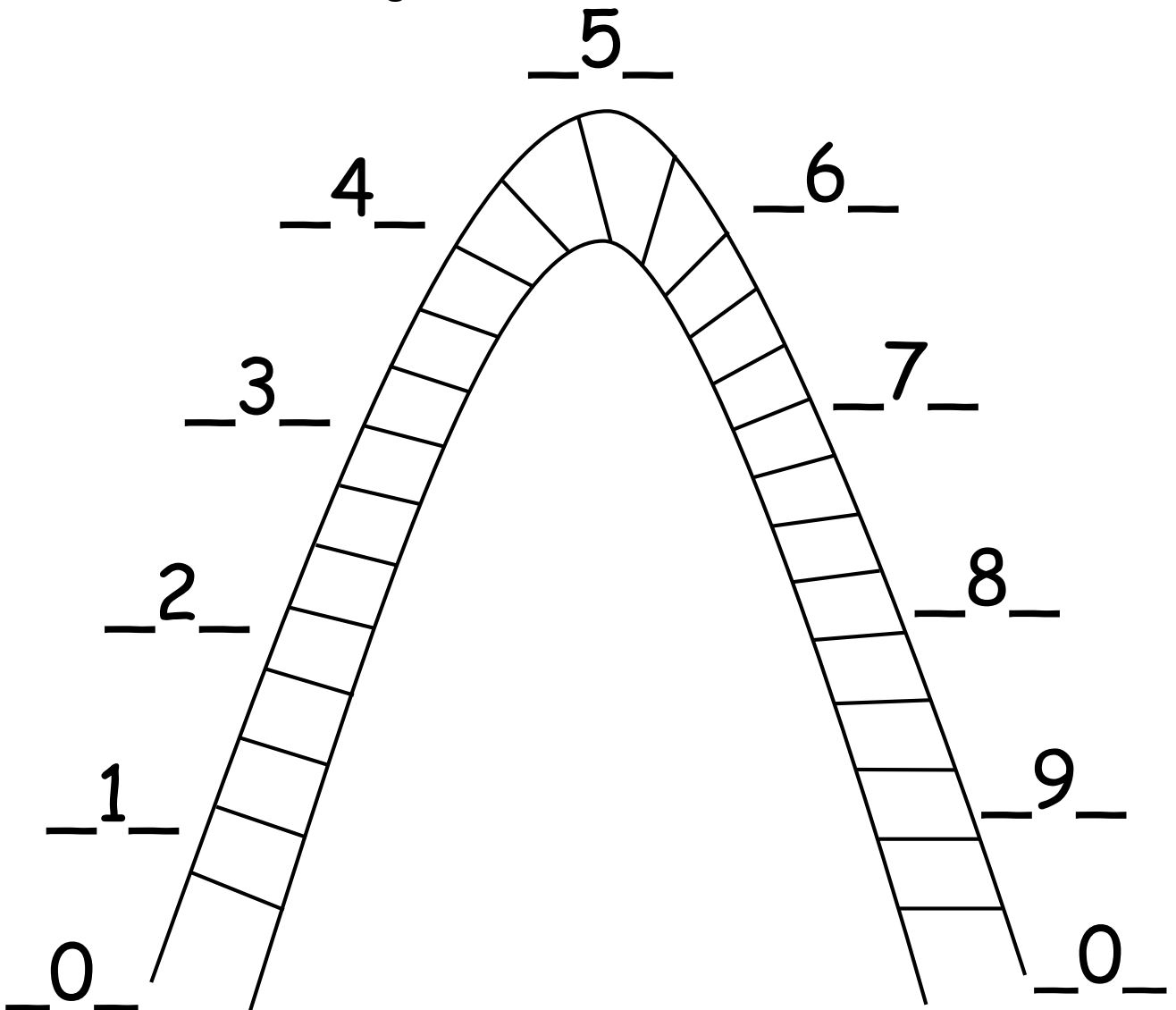


Rounding by 100

Now, you can make up the range of numbers. Take one of the train pieces and write a number from _____ to _____ on it. Place it next to that number on the train track going over a mountain.

If your number ends in 01 to 49, it can't get to the top of the hill, so it rolls back down to the lower ten.

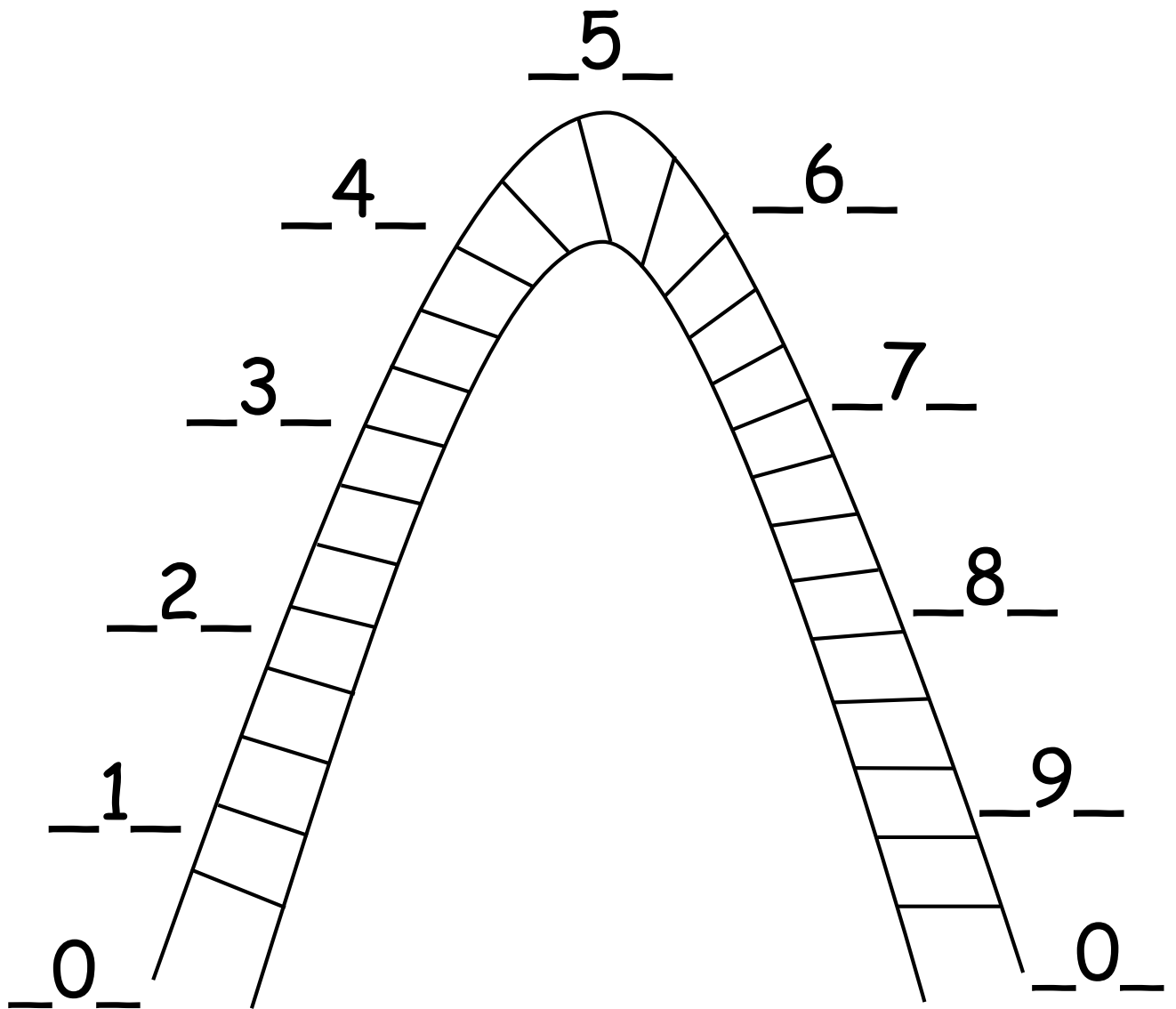
If your number ends in a number 50 or higher it can roll down the hill to higher ten.



Teacher note: have the student write numbers on as many trains and practice with the track as many times as needed for them to feel comfortable with this skill.

Rounding by 100

Blank Track – Use For Customized Extra Practice



Name: _____ Date: _____

Rounding by 100

Round each number to the nearest 100.

104 _____

340 _____

360 _____

970 _____

250 _____

890 _____

290 _____

110 _____

60 _____

230 _____

720 _____

480 _____

707 _____

350 _____

190 _____

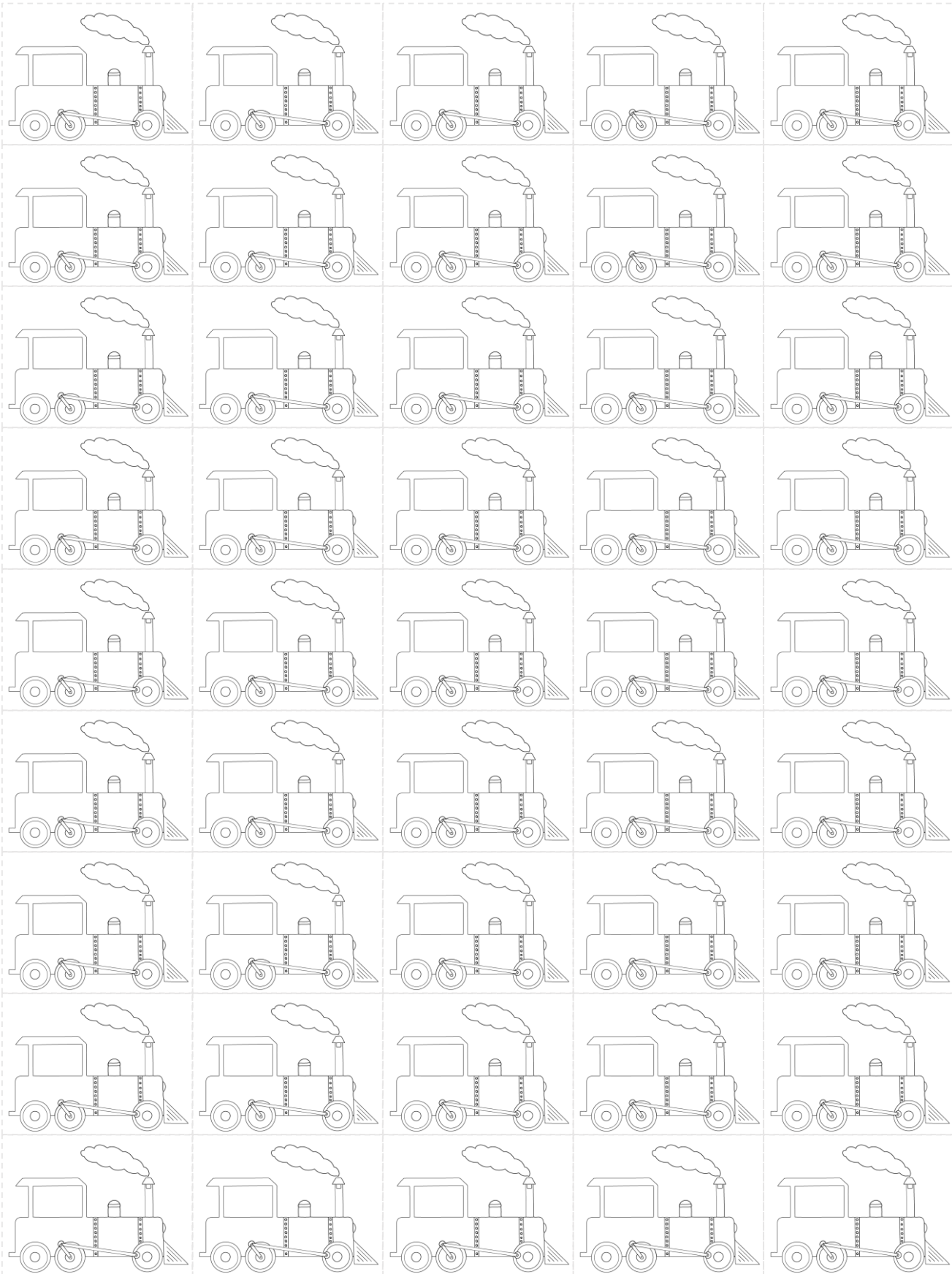
650 _____

610 _____

590 _____

Trains for Use with Pages 12-14 and 22-25.

You'll cut out these trains and use them with the activities on those pages. Instructions for how to use them are on the pages in the lesson.

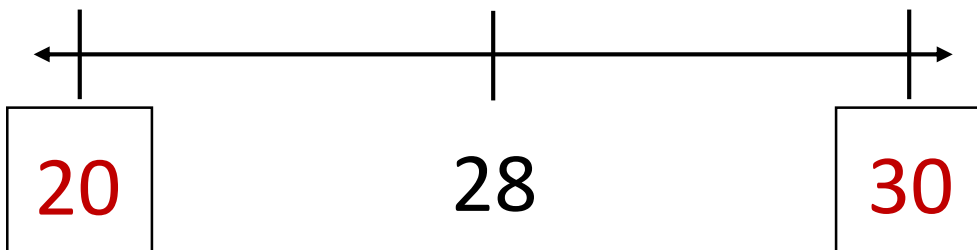
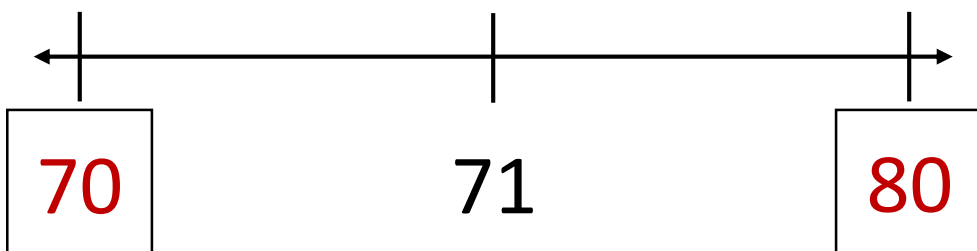
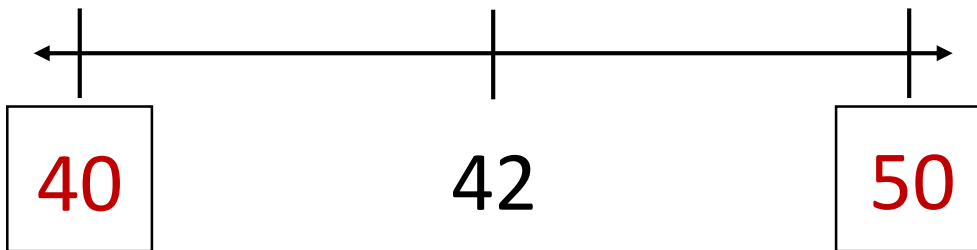
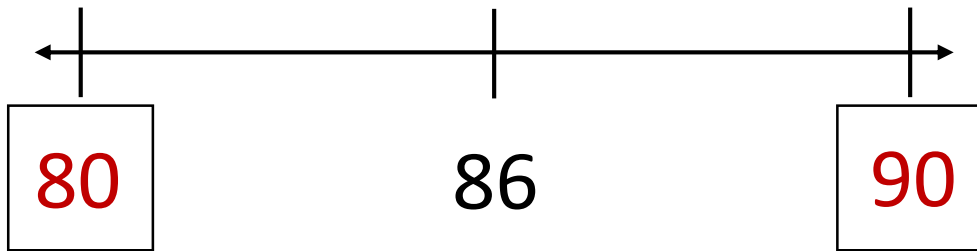


Answer Keys

Rounding
to the
Nearest Ten
Answer Keys

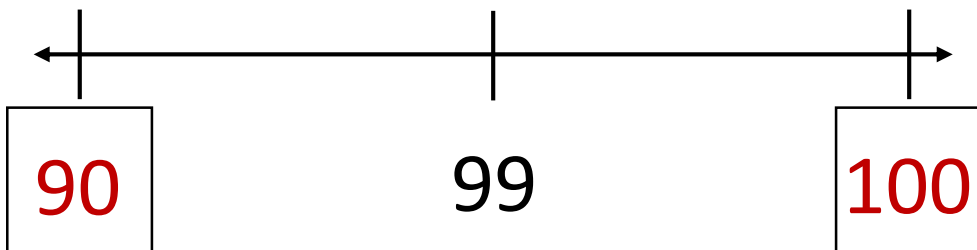
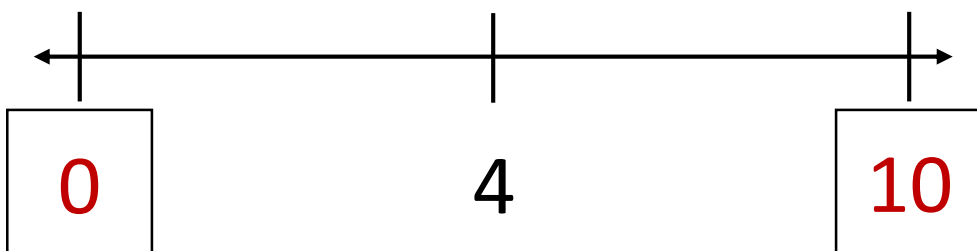
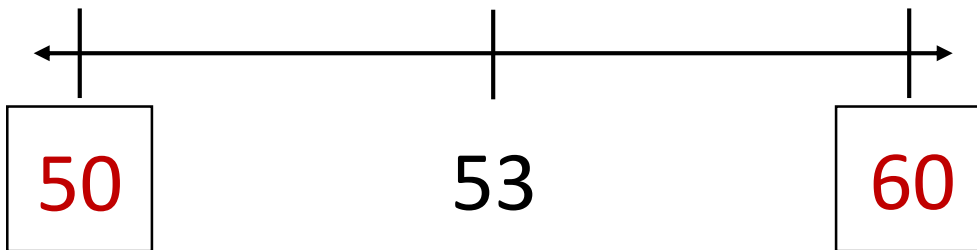
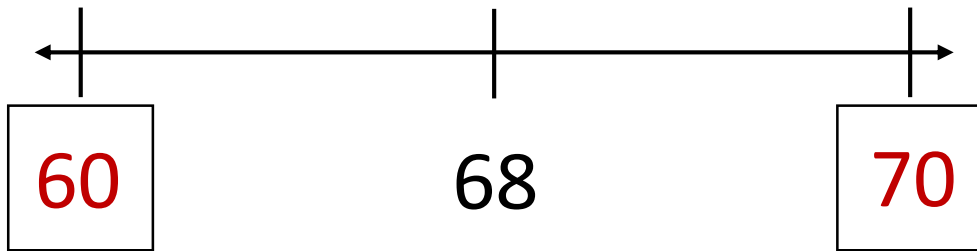
Rounding by 10

For each number, write the “ten” that is above and below the number.



Rounding by 10

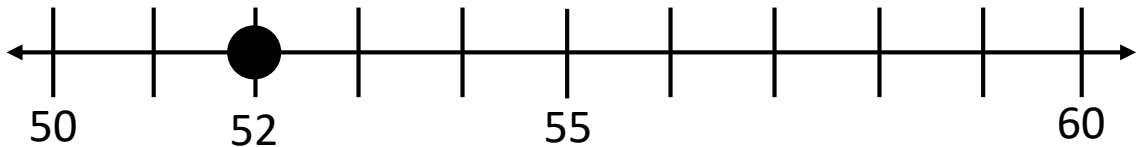
For each number, write the “ten” that is above and below the number.



Rounding by 10

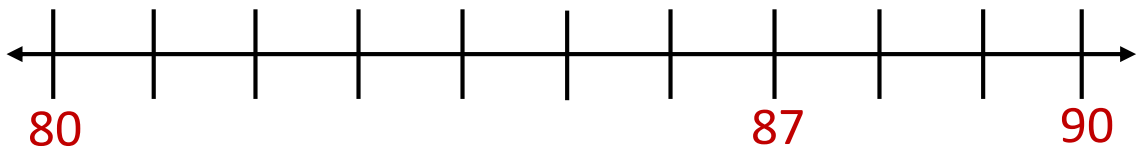
Once we've figured out the ten above and the ten below, we have to see which "ten" our number is closer to.

Round 52 to the nearest 10.



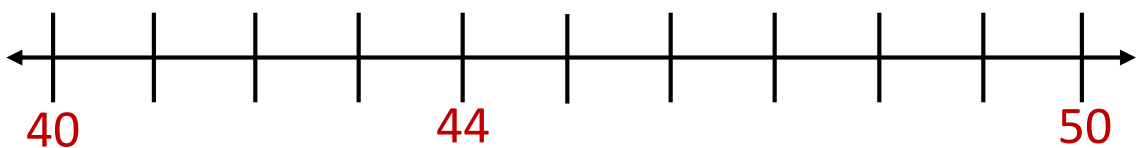
52 is closest to 50.

Round 87 to the nearest 10.



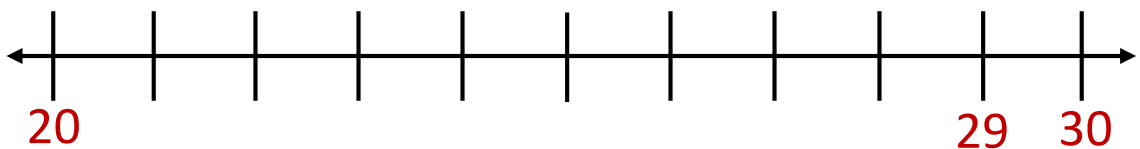
87 is closest to 90.

Round 44 to the nearest 10.



44 is closest to 40.

Round 29 to the nearest 10.

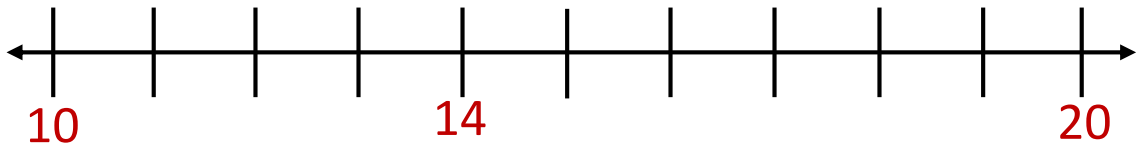


29 is closest to 30.

Rounding by 10

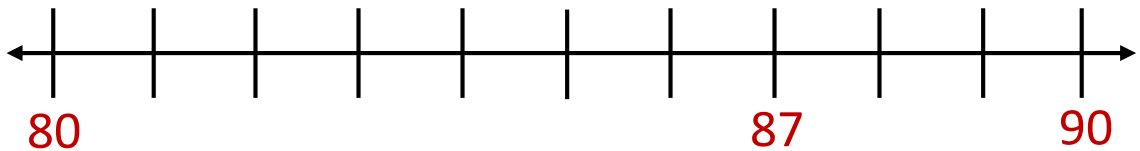
Once we've figured out the ten above and the ten below, we have to see which "ten" our number is closer to.

Round 14 to the nearest 10.



14 is closest to 10.

Round 68 to the nearest 10.

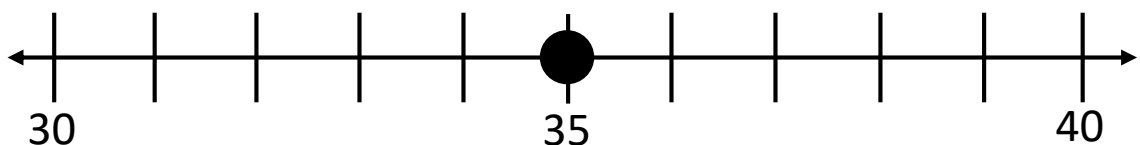


68 is closest to 70.

It's a little different if our number ends with a 5, like the number 35.

When the number ends in 5, we round "up" to the higher ten.

Round 35 to the nearest 10.



35 rounds to 40.

Rounding by 10

Round each number to the nearest 10.

$33 \quad \underline{30}$

$97 \quad \underline{100}$

$25 \quad \underline{30}$

$89 \quad \underline{90}$

$6 \quad \underline{10}$

$23 \quad \underline{20}$

$61 \quad \underline{60}$

$59 \quad \underline{60}$

$72 \quad \underline{70}$

$48 \quad \underline{50}$

$14 \quad \underline{10}$

$34 \quad \underline{30}$

$77 \quad \underline{80}$

$35 \quad \underline{40}$

$29 \quad \underline{30}$

$11 \quad \underline{10}$

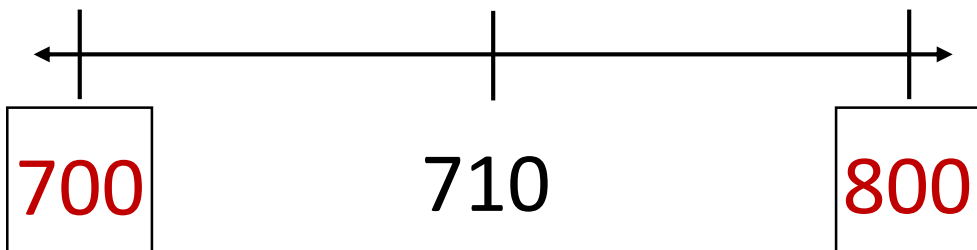
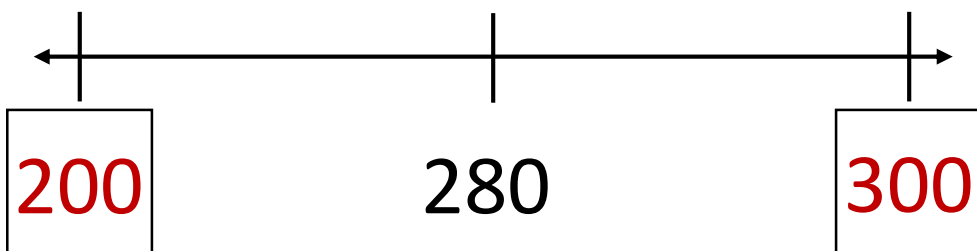
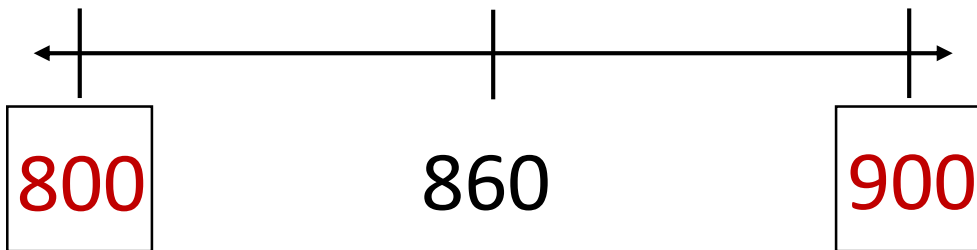
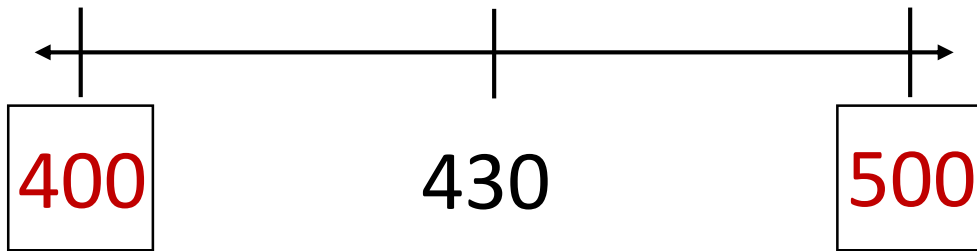
$19 \quad \underline{20}$

$65 \quad \underline{70}$

Rounding
to the
Nearest Hundred
Answer Keys

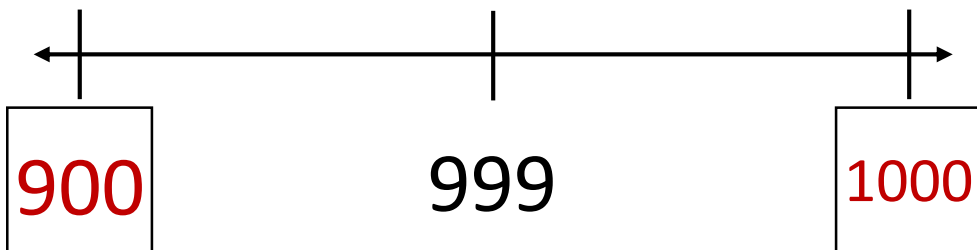
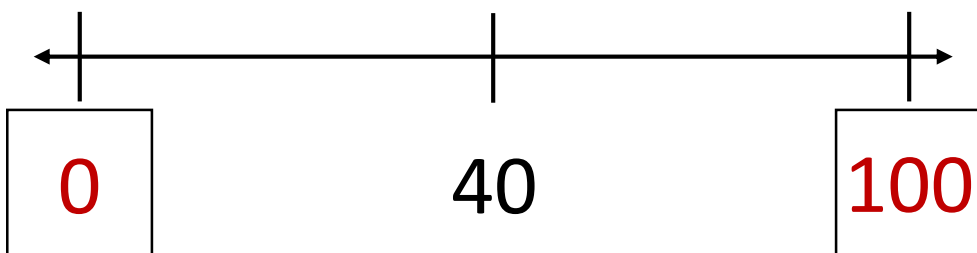
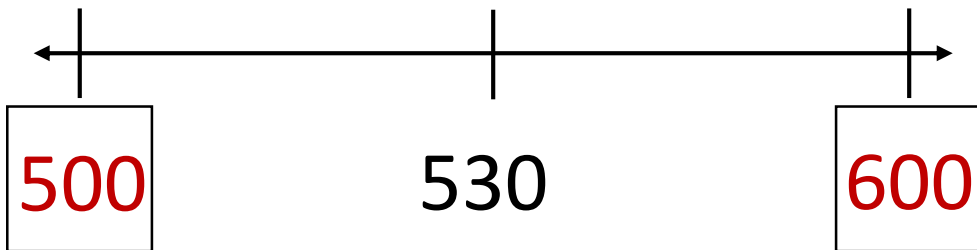
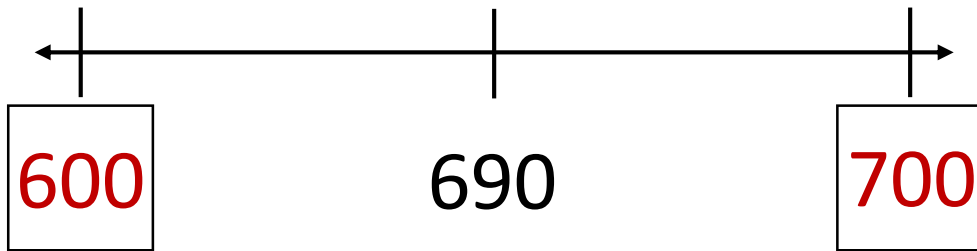
Rounding by 100

For each number, write the “hundred” that is above and below the number.



Rounding by 100

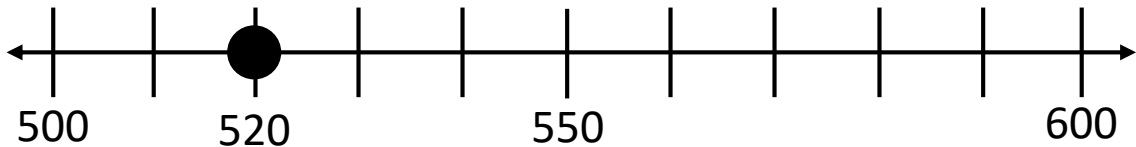
For each number, write the “hundred” that is above and below the number.



Rounding by 100

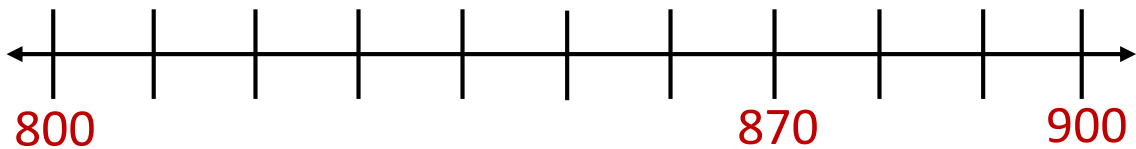
Once we've figured out the hundred above and the hundred below, we have to see which "hundred" our number is closer to.

Round 520 to the nearest 100.



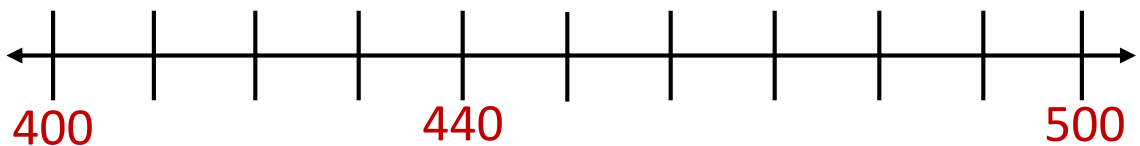
520 is closest to 500.

Round 870 to the nearest 100.



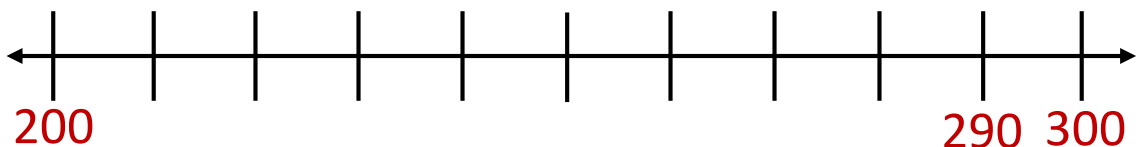
870 is closest to 900.

Round 440 to the nearest 100.



440 is closest to 400.

Round 290 to the nearest 100.

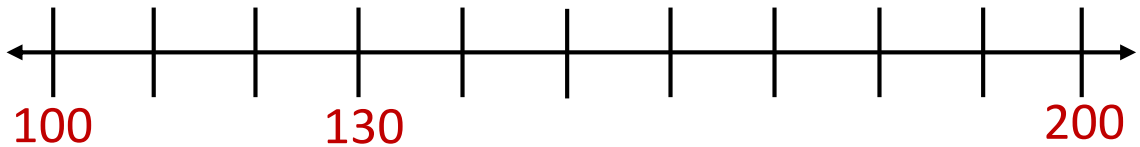


290 is closest to 300.

Rounding by 100

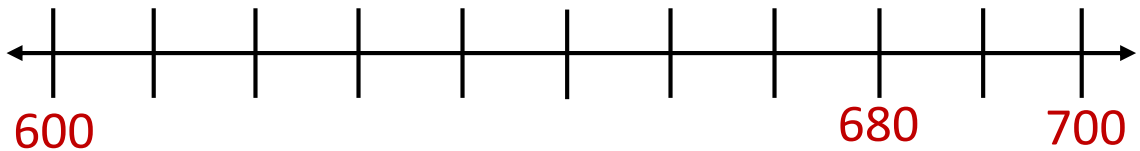
Once we've figured out the hundred above and the hundred below, we have to see which "hundred" our number is closer to.

Round 130 to the nearest 100.



130 is closest to 100.

Round 680 to the nearest 100.

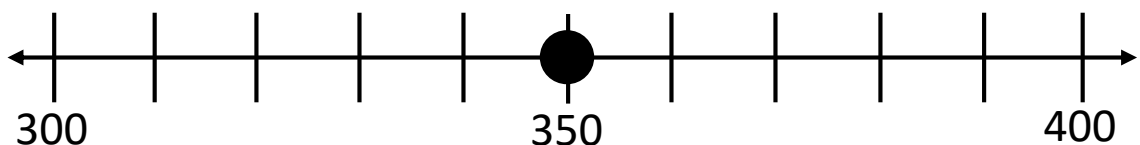


680 is closest to 700.

It's a little different if our number ends with 50, like the number 350.

When the number ends in 50, we round "up" to the higher hundred.

Round 350 to the nearest 100.



350 rounds to 400.

Rounding by 100

Round each number to the nearest hundred.

104 100

340 300

360 400

970 1000

250 300

890 900

290 300

110 100

60 100

230 200

720 700

480 500

707 700

350 400

190 200

650 700

610 600

590 600

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Individual Math Instruction from Dr. Caldwell, founder of Positively Autism



Hi! I'm Dr. Nicole Caldwell and I've been working with students on the autism spectrum for about 14 years.

One of the things I specialize in is working with children who have difficulties in math or anxiety about math.

I use research-based strategies that specifically address math comprehension and retention to make custom lessons for your child.

I love helping kids and teens feel more confident and successful with math.

If you're in the Dallas/Rockwall, Texas area and would like to learn more about working with me, please send me an e-mail to nicole@positivelyautism.com and we'll set up a free initial consultation.