# PERK AND PETEY: A HALLOWEEN MATH ADVENTURE



PERK          PETEY

Meet Perk and Petey.
Perk is a big pumpkin.
Petey is a tiny pumpkin.
They are best friends.

Perk and Petey have secrets. How big are they? How much do they weigh? How many seeds are hidden inside? They won't tell—but you can discover these mysteries for yourself!

Go to the store. Find Perk and Petey, and bring them home.

## MYSTERY # 1: WILL THEY FLOAT OR SINK?

Will Perk and Petey **sink or float** when you put them in water?

Predict if they will sink or float. Then put them in water to see what happens.

|  | Perk | Petey |
|---|---|---|
| PREDICT: Will they sink or float? What do you think? | sink      float | sink      float |
| ACTUAL: What happened when you put them in water? | sink      float | sink      float |

# MYSTERY # 2: HOW BIG ARE THEY?

**How do you measure a pumpkin?**
How TALL measures height.
How WIDE ACROSS measures width.

When you measure height or width, be sure to measure in a straight line from top to bottom or side to side. Don't curve with the pumpkin.

How tall and how wide do you think Perk and Petey are? Write your guesses in the chart below.

Measure to find their actual height and width. Write them in the chart below.

|  | Perk | Petey |
|---|---|---|
| PREDICT: How tall do you think they will be? |  |  |
| ACTUAL: What is their height? |  |  |
| HOW CLOSE WERE YOU? What is the difference between your guess and the actual height? |  |  |
| PREDICT: How wide do you think they are? |  |  |
| ACTUAL: What is their width? |  |  |
| HOW CLOSE WERE YOU? What is the difference between your guess and the actual width? |  |  |

How much taller is Perk than Petey? _____

How much wider is Perk than Petey? _____

# MYSTERY # 3: HOW FAT ARE THEY?

**How fat is Perk? How fat is Petey?**
You will measure HOW BIG AROUND to find out.
**That is called circumference.**

Perk and Petey will absolutely not tell you how fat they are. You will have to find out for yourself.

▢    Predict how many inches around Perk and Petey will be. Write them in the chart.

▢    Get a long string. Put the string around the fattest part of the pumpkin. Cut the string where the edges come together.

▢    Measure the string. This is the circumference of your pumpkin.

▢    Fill in the chart.

▢    Weigh your pumpkins.

|  | Perk | Petey |
|---|---|---|
| PREDICT: How fat do you think they will be? |  |  |
| ACTUAL: What is their circumference? |  |  |
| HOW CLOSE WERE YOU? What is the difference between your guess and the actual circumference? |  |  |
| HOW MUCH do your pumpkins weigh? |  |  |

▢ How much fatter is Perk than Petey? _____

▢ How much more does Perk weigh than Petey? _____

# MYSTERY # 4: HOW MANY SEEDS?

How many seeds are in a big pumpkin?
How many seeds are in a small pumpkin?
What do you think?

☐ **Estimate how many seeds are inside Perk and Petey. Fill in the chart with your prediction.**

☐ **Cut off the top and scoop out the seeds and stringy bits. Take out the seeds.**

☐ **Put the seeds in piles of ten. Count the seeds.**

☐ **Fill in the chart with what you discovered.**

☐ **Carve your pumpkins!**

|  | Perk | Petey |
|---|---|---|
| **PREDICT: How many seeds do you think there will be inside?** |  |  |
| **ACTUAL: How many seeds did you count?** |  |  |
| **HOW CLOSE WERE YOU? What is the difference between your guess and the actual number of seeds?** |  |  |

☐ **Follow the recipe below to roast and eat your pumpkin seeds!**

1. Wash the seeds in a colander. It's ok if a little of the orange stuff remains.
2. Dry the seeds really, really well with paper towels.
3. Spread the seeds on a baking sheet.
4. Toss them with a big pinch of salt and about 2 teaspoons olive oil or melted butter.
5. Bake at 350 degrees for 10-12 minutes, until light brown and crispy.

# MYSTERY # 5: BEFORE AND AFTER WEIGHT

Petey and Perk are going on a diet.
How much weight will they lose?
That's up to you to find out!



☐ **Write down your pumpkins' weights from Mystery #3:**

Perk _____          Petey _____

You took the seeds and stringy goop out of your pumpkins.  You carved their faces. Now there is less pumpkin, so they weigh less.

☐ **Estimate how much you THINK your pumpkins weigh now. Write the number in the chart.**

☐ **Weigh your pumpkins. How close did you get?**

☐ **Fill in the chart.**

|  | Perk | Petey |
|---|---|---|
| How much did your pumpkins weigh before you carved them? |  |  |
| PREDICT: How much do you think they weigh now? |  |  |
| ACTUAL: How much do your pumpkins weigh now? |  |  |
| HOW CLOSE WERE YOU? What is the difference between your guess and how much they actually weigh? |  |  |

**Congratulations—you've discovered Perk and Petey's pumpkin secrets! 🎃**