G4 Basic

G5 Advanced

Helping With Math

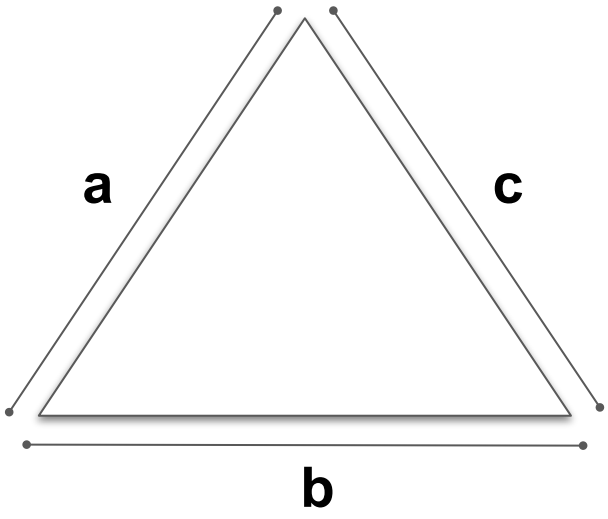
USA GRADES

Perimeter of a Triangle

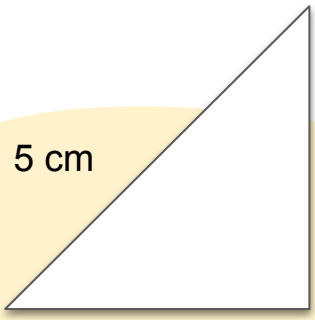
Suitable for students **aged 8-10**

This pack is suitable for learners aged 8-10 years old or 4th to 5th graders (USA). The content covers fact files and relevant basic and advanced activities involving the perimeter of a triangle.

A **perimeter** is the total length or distance of all sides of a geometric figure. Therefore, the **perimeter of a triangle** is the sum of the lengths of its three sides.



a + b + c = Perimeter of a Triangle

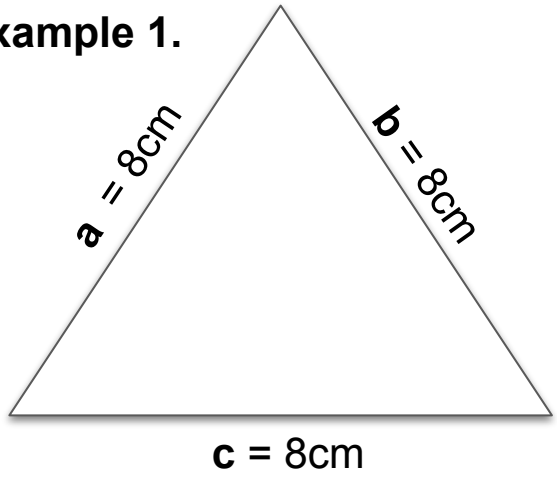


Perimeter of the triangle:
5cm + 3cm + 4cm = 12cm

Thanksgiving is one of the most popular holidays in the US. Celebrated every fourth Thursday of November, it is a day to give thanks for the blessing of the preceding year.

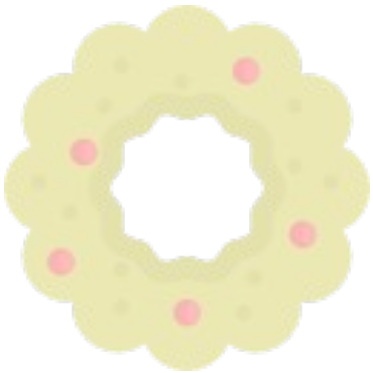
CALCULATING THE PERIMETER OF A TRIANGLE

Example 1.

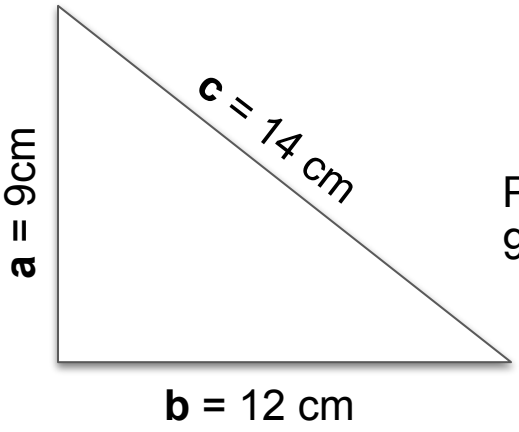


Formula: a+b+c = perimeter

Perimeter:
8cm + 8cm + 8cm = 24cm



Example 2.



Perimeter:
9cm + 12cm + 14cm = 25cm

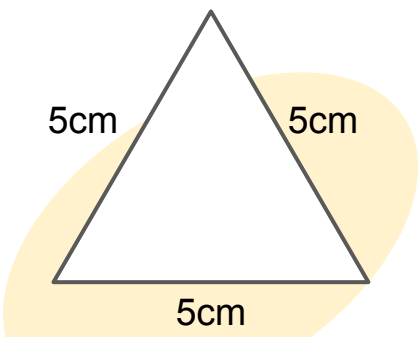
1. Check the triangle and determine the lengths of its sides.

2. Make sure that all sides have the same unit of measurement. If not, then do the necessary conversions.

3. Once you have figured out the length of the three sides, you simply add all three values to get the sum.

4. The sum of all three sides of the triangle is the perimeter.

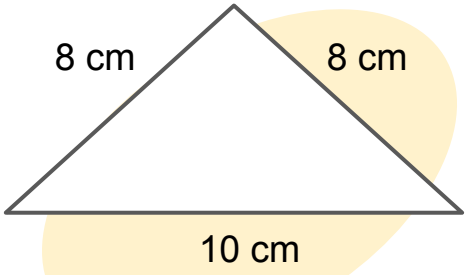
PERIMETER OF DIFFERENT TYPES OF TRIANGLES



Equilateral Triangle

An equilateral triangle has three sides and three angles with equal measurements. If you know the measurement of one side, you can just add the length three times or simply multiply the length by three to find the perimeter.

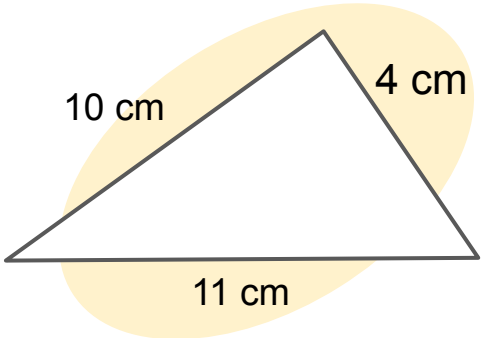
➔ 5 cm + 5 cm + 5 cm = 15 cm
➔ 5cm x 3 = 15 cm



Isosceles Triangle

An isosceles triangle has two sides and two angles with equal measurements. If you know the measurement of one leg, you can just add it twice or multiply it by two and then add the base measurement to find the perimeter.

➔ 8 cm + 8 cm + 10 cm = 26 cm
➔ 8 cm x 2 legs = 16 cm
16cm + 10 cm (length of base) = 26cm



Scalene Triangle

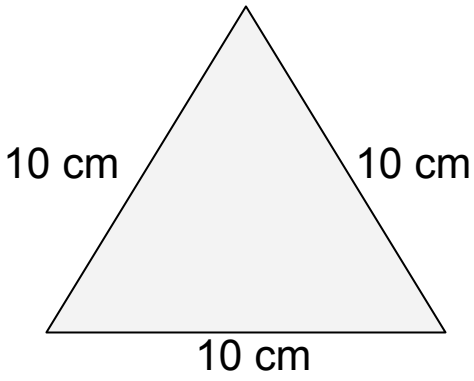
A scalene triangle has no equal sides. You will have to measure each side and add them up to find the perimeter.

➔ 4 cm + 10 cm + 11 cm = 25 cm

FINDING THE PERIMETER EXERCISES

Compute for the perimeter of the below triangles:

1.



2.

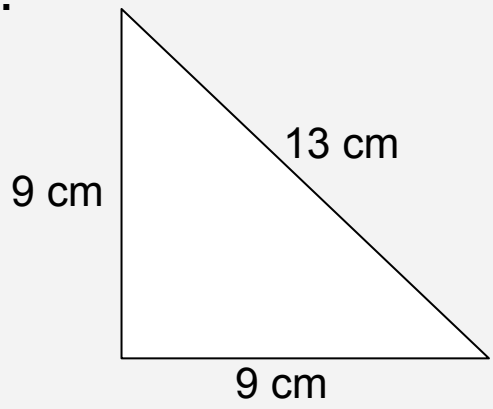


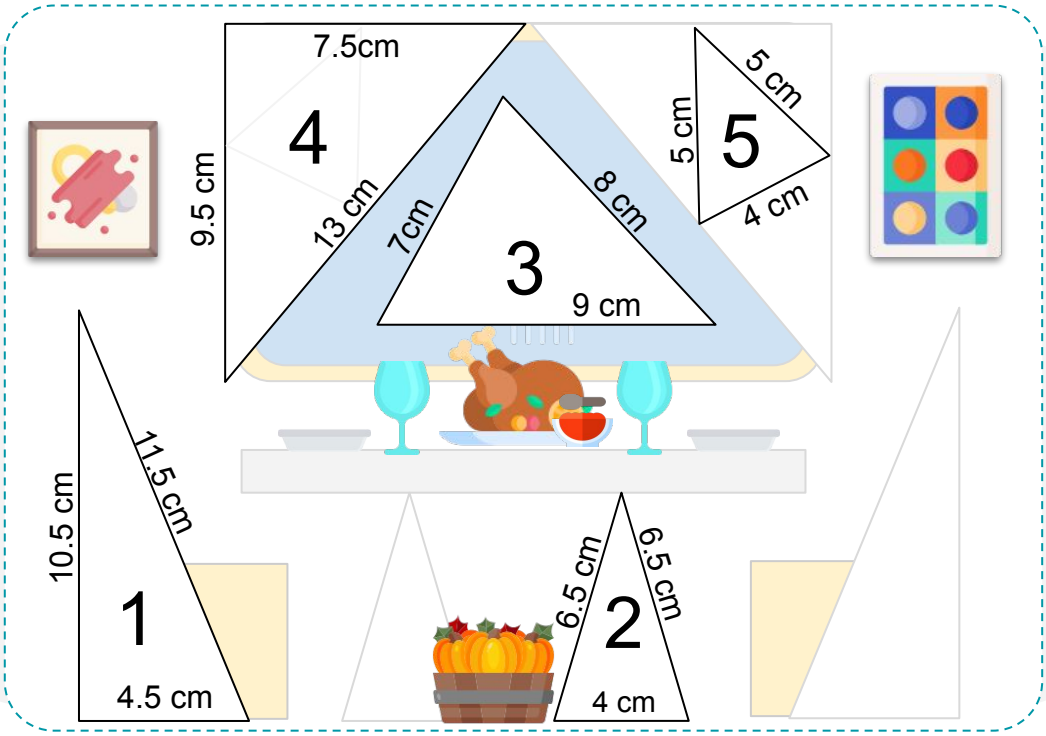
TABLE OF ACTIVITIES

Ages 8-9 (Basic)		4th Grade
1	Happy Thanksgiving!	
2	The First Thanksgiving	
3	Pumpkin Patch	
4	Game Day	
5	Slice of Pie	
Ages 9-10 (Advanced)		5th Grade
6	Thanksgiving To-Do-List	
7	Dinner Time	
8	Turkey Pardon	
9	The Parade	
10	Black Friday	

HAPPY THANKSGIVING!

G4 Basic

Brine your turkeys, bake your pies, and get ready to give thanks. It is Thanksgiving Day! In the Thanksgiving set-up below, calculate the perimeters of the numbered triangles. Show your solutions for each number in the boxes provided.



1. ☐ + ☐ + ☐ = ☐
2. ☐ + ☐ + ☐ = ☐
3. ☐ + ☐ + ☐ = ☐
4. ☐ + ☐ + ☐ = ☐
5. ☐ + ☐ + ☐ = ☐

THE FIRST THANKSGIVING

G4
Basic

The first Thanksgiving recorded was in November 1612 in Plymouth, Massachusetts between the Pilgrims and Wampanoag Indians. They celebrated the autumn harvest. Let us honor this celebration. Answer the problems and show your solutions.

1. If the total perimeter of a triangle is 137cm, one side is 28.5cm and another side is 53cm, what is the value of the missing length?

Solution/Explanation:

2. If one leg of an isosceles triangle is 29cm and the total perimeter of the triangle is 108 cm, what is the length of the triangle's base?

Solution/Explanation:

3. An equilateral triangle has one side measuring 15cm. What is the total perimeter of this triangle?

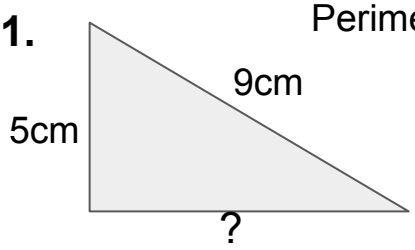
Solution/Explanation:

PUMPKIN PATCH

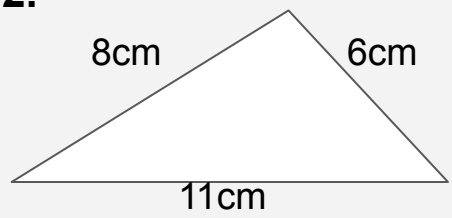
G4 Basic

When Autumn comes along, all kinds of pumpkin products are available just in time for Thanksgiving. Let us pick our pumpkins from the patch. Connect each triangle on the left to its missing value on the right.

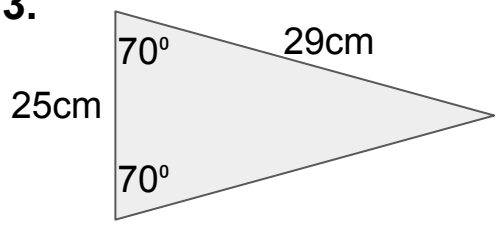
1. Perimeter = 22cm



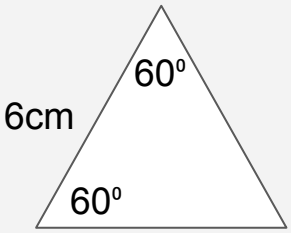
2. Perimeter = ?



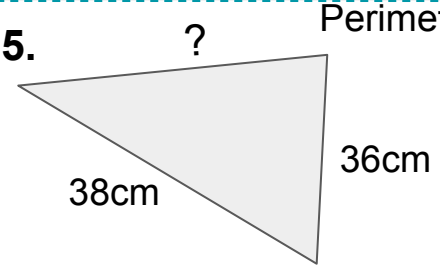
3. Perimeter = ?



4. Perimeter = ?



5. Perimeter = 111 cm



25cm

18cm

8cm

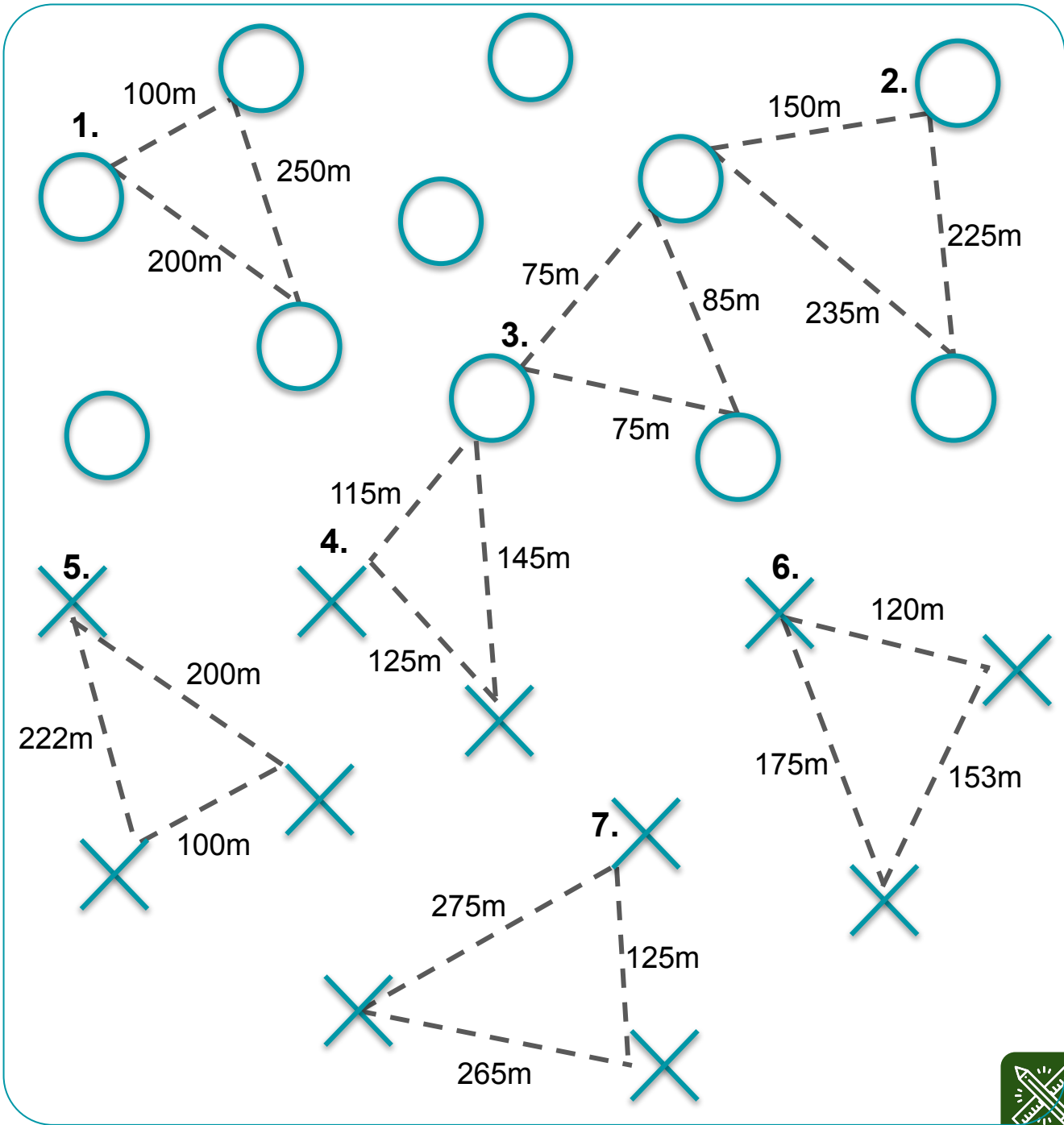
37cm

83cm

GAME DAY

G4
Basic

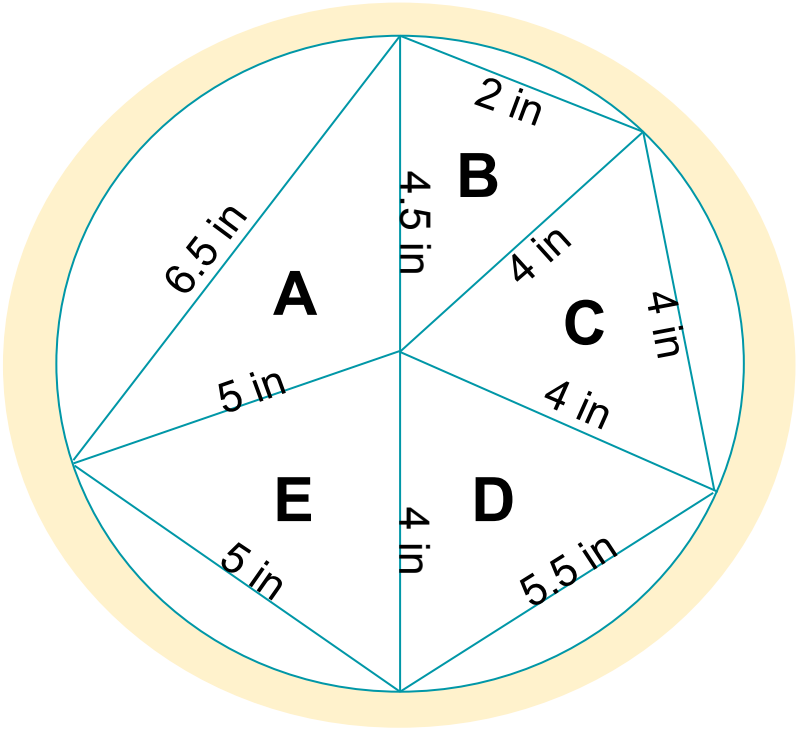
The annual Thanksgiving football games have now been tradition ever since 1876. Many families nowadays would gather to watch football on Thanksgiving day. Solve the perimeter for the triangle in each number and write down the answer inside the triangles.

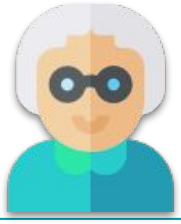


SLICE OF PIE

G4 Basic

Thanksgiving is not complete without a slice of pie! Each family member below is assigned a pie slice perimeter. Write down the letter of the pie slice in the space provided below that corresponds to the family member's pie slice perimeter.

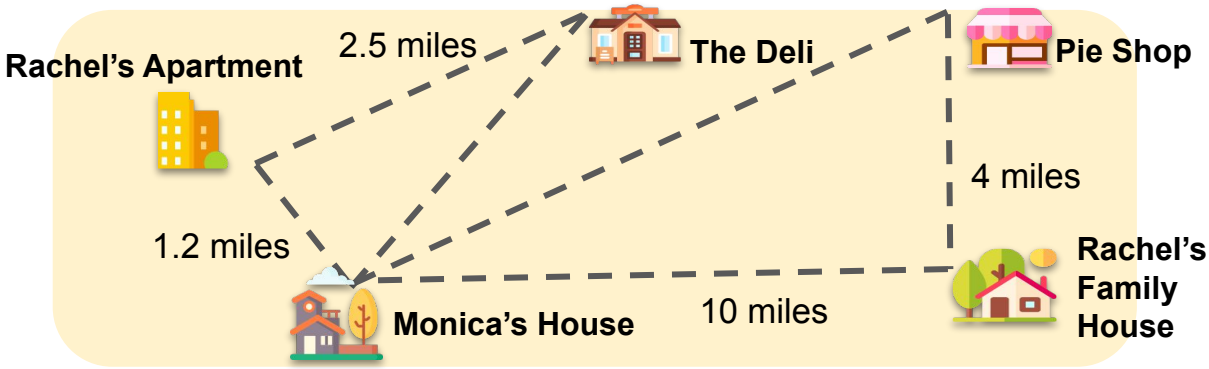


Family Member	1.	2.	3.	4.	5. 
Pie Slice Perimeter	13.5 in	14 in.	12 in	16 in.	10.5 in.
Answer					

THANKSGIVING TO-DO-LIST

G5 Advanced

Thanksgiving is a very hectic holiday. Families preparing for their special dinners and a lot of people traveling to get to their family homes. Based on the diagram below, finish the to-do-list and solve the word problems. Show your solutions.



1. **Pick-up the roast turkey from The Deli**

   Rachel's needs to pick up her friend Monica but before that she has to pick-up the roast turkey at The Deli. If the total triangle perimeter of Rachel's Apartment to the Deli and to Monica's House is 7.4 miles. How far is Monica's house from the Deli? **Solution**:

2. **Pick-up the pumpkin pie from the Pie Shop**

   After picking up Monica, they need to pick-up the delicious pumpkin pie at the Pie Shop and then proceed to Rachel's family house. If the total triangle perimeter of Monica's House to the Pie Shop to Rachel's family house is 25 miles, how far is Monica's House to the Pie Shop? **Solution**:

DINNER TIME

G5 Advanced

It's time for Thanksgiving dinner but we forgot something! Solve for the perimeter of the triangle based on the provided length values in each number. Match the answers to the letters in the table below. Use the boxes in each number to note down the letters. Unscramble the letters to find the missing grocery item.

1. a = 12cm
   b = 15cm
   c = 10.5cm

2. a = 49cm
   b = 22cm
   c = 12cm

3. a = 55cm
   b = 17.5cm
   c = 40cm

4. a = 42cm
   b = 80cm
   c = 36cm

5. a = 8cm
   b = 6cm
   c = 8.4cm

6. a = 9.1cm
   b = 11cm
   c = 21.1cm

7. a = 3cm
   b = 5cm
   c = 3cm

8. a = 4cm
   b = 12cm
   c = 12cm

9. a = 5cm
   b = 4cm
   c = 6cm

10. a = 2cm
    b = 5cm
    c = 2cm

11. a = 52cm
    b = 42cm
    c = 26cm

37.5cm R	**120cm** S	**4.5cm** T	**56cm** A	**112.5cm** R
83cm A	**22.4cm** B	**158cm** C	**9cm** I	**15cm** E
41.2cm N	**33cm** W	**11cm** E	**67cm** N	**28cm** R

What did we forget to buy at the supermarket?

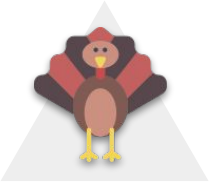
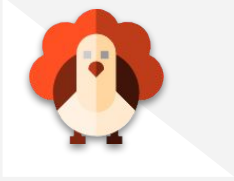
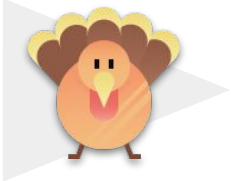
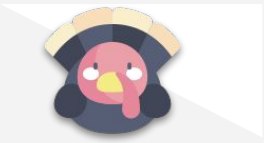
Answer:

_____

TURKEY PARDON

G5 Advanced

Every year during Thanksgiving, it has become a tradition of the White House for the president to pardon a turkey. Pardon all turkeys by encircling the letter with the correct length measurements based on the perimeter of each number.

1.  Perimeter: **65cm**	a. 25cm, 15cm, 35cm b. 32cm, 24cm, 22cm c. 25cm, 15cm, 25cm
2.  Perimeter: **125.5cm**	a. 28.2cm, 29.3cm, 78cm b. 48.5cm, 42.5cm, 34.5cm c. 75cm, 56cm, 14.5cm
3.  Perimeter: **84.2cm**	a. 62.1cm, 42.1cm, 20cm b. 15cm, 45.1cm, 44.1cm c. 15.1cm, 32cm, 37.1cm
4.  Perimeter: **219cm**	a. 56cm, 42cm, 121cm b. 23cm, 37cm, 59cm c. 69cm, 145cm, 105cm
5. Perimeter: **46cm**	a. 10cm, 12cm, 24cm b. 12cm, 24cm, 20cm c. 25cm, 10cm, 31cm

THE PARADE

G5 Advanced

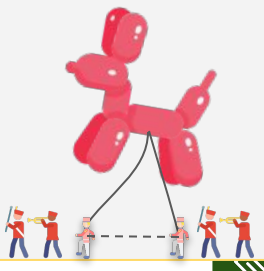
Another annual tradition during Thanksgiving is the Macy's Thanksgiving Day Parade where people could watch fun and colorful floats parade around New York City. Help set-up the parade by solving the problems and encircle the letter of your answer.

1. A new float will be joining the Thanksgiving day parade. It features a large Christmas tree with beautiful and colorful ornaments. The tree is shaped as an isosceles triangle and the whole perimeter of it is 26 feet. The base of this tree measures 6 feet. What is the length of each side of this Christmas tree?

   a. 13 ft, 7 ft., 6 ft.
   b. 8 ft., 12 ft, 6 ft.
   c. 15 ft., 5 ft., 6 ft.
   d. 10 ft., 10 ft., 6ft.

2. They are preparing to launch a falloon (balloon float) of a beloved cartoon character. They need several ropes to hold on to and keep the falloon down. The total length of one rope is 28 ft. This rope will be attached from the middle to the falloon and two people will hold on to each end of the rope. This will set-up a triangle shape. If the total perimeter of this triangle is 39 ft. How far apart should the two people be standing from each other?

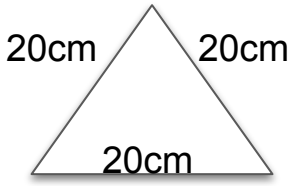
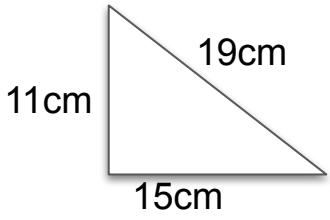
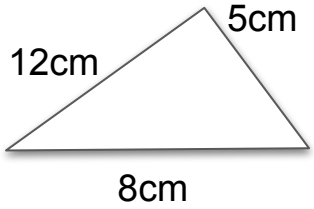
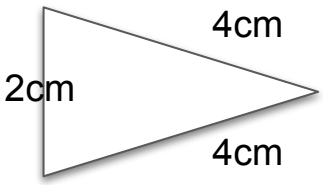
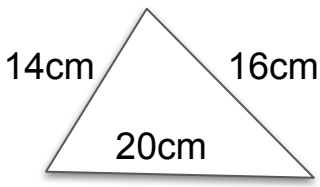
   a. 14 ft.
   b. 11 ft.
   c. 10 ft.
   d. 9 ft.



BLACK FRIDAY

G5 Advanced

Just right after Thanksgiving is Black Friday where shopping season starts! Figure out the discounts for each item below by calculating the perimeter of each triangle. Subtract the discounts from the retail price and get the total amount of your purchases.

Item	Retail Price	Discount		Discounted Price
1.	$649	-$		$
2.	$489	-$		$
3.	$79	-$		$
4.	$49	-$		$
5.	$169	-$		$
			TOTAL AMOUNT	$

ANSWER GUIDE

Activity 1

1. 10.5 cm + 4.5 cm + 11.5 cm = 26.5 cm
2. 6.5 cm + 6.5 cm + 4 cm = 17 cm
3. 7 cm + 8 cm + 9cm = 24 cm
4. 9.5 cm + 7.5 cm + 13 cm = 30 cm
5. 5 cm + 5 cm + 4cm = 14cm

Activity 2

1. Total Perimeter = 137 cm
Side A = 28.5 cm
Side B = 53 cm
Side C = ?

Side A + Side B = sum of two sides
28.5 cm + 53 cm = 81.5 cm

Perimeter - sum of two sides = Side C
137 cm - 81.5 cm = 55.5 cm

Side C = 55.5 cm

2. Total Perimeter = 108 cm
Side A = 29 cm
Side B = 29 cm
Side C = ?

The two legs of the isosceles triangle have equal lengths, therefore Side A and Side B have the same measurement.

Side A + Side B = sum of two sides
29 cm + 29 cm or 29 x 2 = 58 cm

Perimeter - sum of two sides = Side C
108 cm - 58 cm = 50 cm

Side C = 50 cm

3. In an equilateral triangle, all sides have the same measurement.

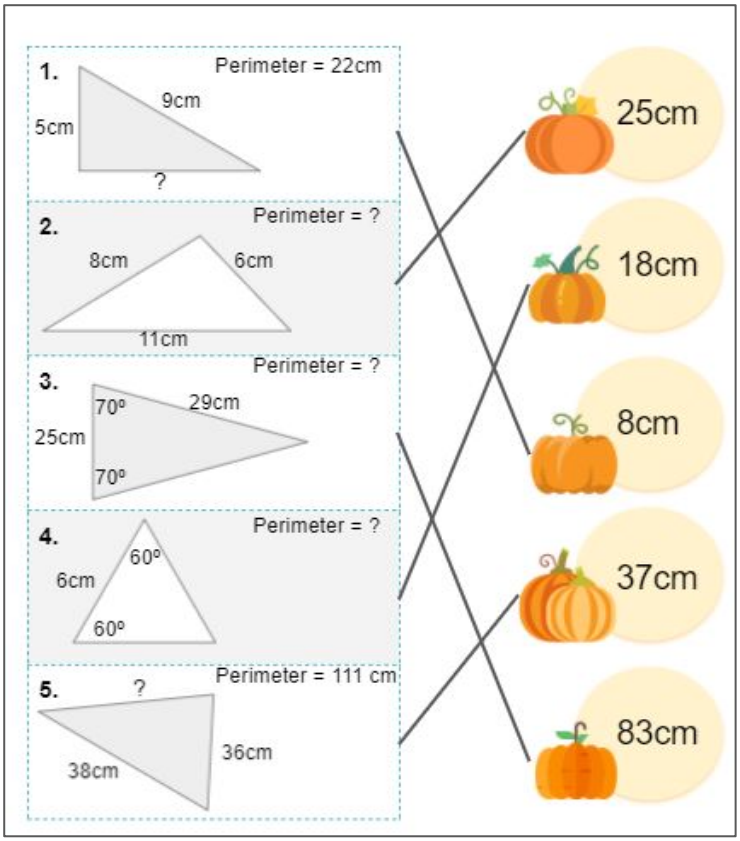
Side A = 15cm, therefore, all sides measure 15cm.
15 cm + 15 cm + 15 cm or 15 x 3 = 45 cm

Total Perimeter = 45cm

ANSWER GUIDE

Activity 3

1. 8cm
2. 25cm
3. 83cm
4. 18cm
5. 37cm



Activity 4

1. 550 m
2. 610 m
3. 235 m
4. 385 m
5. 522 m
6. 448 m
7. 665 m

Activity 5

1. D
2. E
3. C
4. A
5. B

ANSWER GUIDE

Activity 6

1. Total Perimeter = 7.4 miles
   Side A: Rachel to Deli = 2.5 miles
   Side B: Rachel to Monica = 1.2 miles
   Side C: Deli to Monica = ?

   Side A + Side B = sum of two sides
   2.5 miles + 1.2 miles = 3.7 miles

   Total perimeter - sum of two sides = Side C
   7.4 miles - 3.7 miles = 3.7 miles

   From The Deli to Monica's House is 3.7 miles

2. Total Perimeter = 25 miles
   Side A: Pie Shop to Rachel's Family House = 4 miles
   Side B: Rachel's Family House to Monica = 10 miles
   Side C: Monica to Pie Shop = ?

   Side A + Side B = sum of two sides
   4 miles + 10 miles = 14 miles

   Total perimeter - sum of two sides = Side C
   25 miles - 14 miles = 11 miles

   From Monica to the Pie Shop is 11 miles

ANSWER GUIDE

Activity 7

1. 37.5 - R
2. 83 - A
3. 112.5 - R
4. 158 - C
5. 22.4 - B
6. 41.2 - N
7. 11 - E
8. 28 - R
9. 15 - E
10. 9 - I
11. 120 - S

What did we forget to buy at the supermarket?

Answer: Cranberries

Activity 8

1. C
2. B
3. C
4. A
5. A

Activity 9

1. D. 10 ft., 10 ft., 6ft.

2. B. 11 ft.

Activity 10

1. $649 - $60 = $589
2. $489 - $45 = $444
3. $79 - $25 = $54
4. $49 - $10 = $39
5. $169 - $50 = $119

Total Amount: $ 1,245

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