

Sam's Measurements

1. Sam and his dad measured lengths with their footprints. Their measurements are listed below. They forgot to label their measurements.

A. Which measurements belong to Sam's dad and which belong to Sam? Write "Sam's Dad" or "Sam" above each column.

Distance	_____	_____
	Footprints	Footprints
Length of Sam's Bed	30	10
Width of Sam's Bed	9	3

B. Tell how you decided.

2. Sam has an identical twin brother named Josh. Josh measured the length of Sam's bed with his footprints. What answer do you think he would get? Why?



Sam measured lines of tape using deer footprints and elephant footprints. He collected his data in the chart below.

Distance	Deer Footprints	Elephant Footprints
Line P	12	3
Line Q	16	4
Line R	4	1

3. Compare the lengths. Use $<$, $>$, or $=$.

A. 3 deer footprints 3 elephant footprints

B. Line P Line Q

C. Line Q Line R

4. Compare the length of Line R to the length of Line P.

A. Which is longer? _____

B. How much longer? Write a number sentence to show how you solved the problem.

Number sentence _____

5. Sam decided to measure the length of Line P in squirrel footprints. He made an estimate and so did his brother Josh.



Sam

I think Line P will be about 10 squirrel footprints because a squirrel's footprint is smaller than an elephant's footprint.



Josh

I think Line P will be about 24 squirrel footprints because a squirrel's footprint is smaller than an elephant's footprint.

Do you agree with Josh or Sam? Explain.

6. Decide if each statement “could be” or is “crazy.” Circle one. Be ready to tell how you decided.

A. Sam estimated that the length of Line P to be about 6 squirrel footprints.

could be

crazy

B. Sam and his brother measured the length of the same room. Sam found the room was 8 elephant footprints and Josh found the room was 32 deer footprints.

could be

crazy

Tell how you decided. _____

Name _____ Date _____

Sam's Measurements Feedback Box	Expectation	Check In	Comments
Use words and symbols (e.g., $<$, $>$, $=$) to show comparisons of quantities (e.g., lengths). [Q# 3–4]	E1		
Use and apply place value concepts and comparative language to compare and order lengths (e.g., shorter, longer, shortest, longest). [Q# 3]	E2		
Solve word problems (e.g., compare) involving length. [Q# 4]	E3		
Recognize that the measure of a length is dependent on the size of the unit of measure (e.g., a pencil is 6 inches or 15 centimeters). [Q# 1–2, 5–6]	E4		
Estimate length using nonstandard units (palms and footprints). [Q# 5–6]	E5		

Yes . . .

Yes, but . . .

No, but . . .

No . . .

	Yes . . .	Yes, but . . .	No, but . . .	No . . .
MPE5. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking. [Q# 6]				
MPE6. Use labels. I use labels to show what numbers mean. [Q# 1, 4, 5, 6]				