

Shadow Study Data Sheet

7 ft./ 213 cm														
6.5 ft./ 198 cm														
6 ft./ 183 cm														
5.5 ft./ 168 cm														
5 ft./ 152 cm														
4.5 ft./ 138 cm														
4 ft./ 122 cm														
3.5 ft./ 107 cm														
3 ft./ 91 cm														

TIME OF DAY:
 _____ : _____
 AM or PM

Student Name: _____ student shadow

Student Name: _____ student shadow

Student Name: _____ student shadow

Student Name: _____ student shadow

Student Name: _____ student shadow

Student Name: _____ student shadow





Calculating the Height of an Object

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STEP #1: Collect your data. Measure and record your results below.

Length of the flagpole's shadow inches

Height of the person inches

Length of the person's shadow inches

STEP #2: Put your data into the formula. Use the colored boxes to place the numbers in the correct place.

MULTIPLY:

Length of flagpole's shadow
X Height of the person

answer from step #2

STEP #3: Put your data into the formula. Use the colored boxes to place the numbers in the correct place.

DIVIDE:

Height of flagpole.
 answer from step #2
 Length of person's shadow

STEP #4: Change your answer into feet by dividing by 12.

DIVIDE:

12

write your answer here

Height of flagpole
feet inches



Get the Ball Rolling! Data Sheet

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TRIAL #1:	OBJECT #1: _____									
	OBJECT #2: _____									
	OBJECT #3: _____									
	OBJECT #4: _____									
TRIAL #2:	OBJECT #1: _____									
	OBJECT #2: _____									
	OBJECT #3: _____									
	OBJECT #4: _____									
TRIAL #3:	OBJECT #1: _____									
	OBJECT #2: _____									
	OBJECT #3: _____									
	OBJECT #4: _____									

5 feet 10 feet 15 feet 20 feet 25 feet 30 feet 35 feet 40 feet 45 feet 50 feet

OBJECTS TO BE TESTED:

OBJECT #1:

OBJECT #1 WEIGHT:

OBJECT #2:

OBJECT #2 WEIGHT:

OBJECT #3:

OBJECT #3 WEIGHT:

OBJECT #4:

OBJECT #4 WEIGHT:



Beaufort Wind Scale

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BEAUFORT NUMBER	DESCRIPTION AND WIND SPEED	OBSERVATIONS
0	Calm 0 to 1 mph	Smoke rises vertically
1	Light air 2 to 3 mph	Smoke drifts slowly
2	Slight breeze 4 to 7 mph	Leaves rustle, wind van moves
3	Gentle breeze 8 to 12 mph	Twigs move, flags extended
4	Moderate breeze 13 to 18 mph	Branches move, dust and paper rise
5	Fresh breeze 19 to 24 mph	Small tree sway
6	Strong breeze 25 to 31 mph	Large branches sway, wires whistle
7	Moderate gale 32 to 38 mph	Trees in motion, walking difficult
8	Fresh gale, 39 to 46 mph	Twigs break off trees
9	Strong gale 47 to 54 mph	Branches break, roof damage
10	Whole gale, 55 to 63 mph	Trees snap, damage evident
11	Storm 64 to 72 mph	Widespread damage
12	Hurricane 73 to 82 mph	Extreme damage

_____ 's Nature Journal



Checklist:

- * Time
- * Date
- * Weather
- * What you SAW, HEARD, SMELLED, etc.
- * Important Measurements
- * Drawing

Handwriting practice lines consisting of a solid red top line, a dashed blue middle line, and a solid blue bottom line.

