

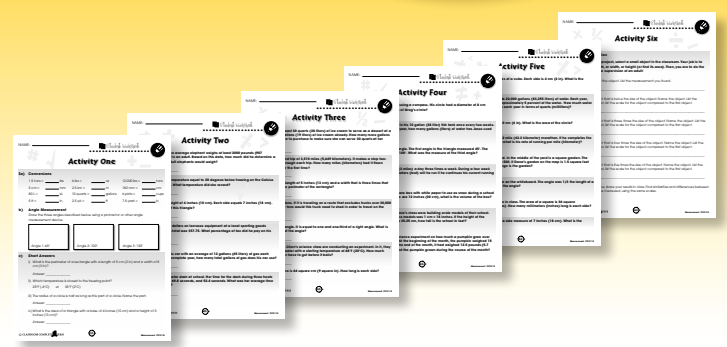
	TEACHER GUIDE	
	• NCTM Content Standards Assessment Rubric	4
	• How Is Our Resource Organized?	5
	• The NCTM Principles & Standards.....	6
	STUDENT HANDOUTS	
	• Exercises	
	<i>Task Sheet 1</i>	7
	<i>Task Sheet 2</i>	8
	<i>Task Sheet 3</i>	9
	<i>Task Sheet 4</i>	10
	<i>Task Sheet 5</i>	11
	<i>Task Sheet 6</i>	12
	<i>Task Sheet 7</i>	13
	<i>Task Sheet 8</i>	14
	<i>Task Sheet 9</i>	15
	<i>Task Sheet 10</i>	16
	<i>Task Sheet 11</i>	17
	<i>Task Sheet 12</i>	18
	<i>Task Sheet 13</i>	19
	<i>Task Sheet 14</i>	20
	<i>Task Sheet 15</i>	21
	• Drill Sheets.....	22
	• Review	24
	EASY MARKING™ ANSWER KEY	27
	MINI POSTERS	30

✓ 6 BONUS Activity Pages! Additional worksheets for your students

FREE!

- Go to our website: www.classroomcompletepress.com/bonus
- Enter item CC3115
- Enter pass code CC3115D for Activity Pages.





Task Sheet 1

Touch The Sky

- 1) Stephanie is editing the tenth edition of *World's Tallest Buildings*. As part of her job, she needs to convert the following heights of the several skyscrapers from feet to meters. Look at the table below and then help her convert the building heights from feet to meters.



Building	Height in Feet	Height in Meters
Willis Tower	1450 (Chicago)	
Citic Plaza	1283 (China)	
Empire State Building	1250 (New York)	
Central Plaza	1227 (Hong Kong)	
Emirates Tower One	1165 (U.A.E)	
John Hancock Center	1127 (Chicago)	
Chrysler Building	1046 (New York)	
Bank of America Plaza	1023 (Atlanta)	
Library Tower	1018 (Los Angeles)	
Commerzbank Tower	981 (Germany)	

Explore With Technology



Use the Internet to find information about other famous skyscrapers throughout the world. Find three other buildings that could be added to this list above. List the buildings below, and write their height in feet and meters.

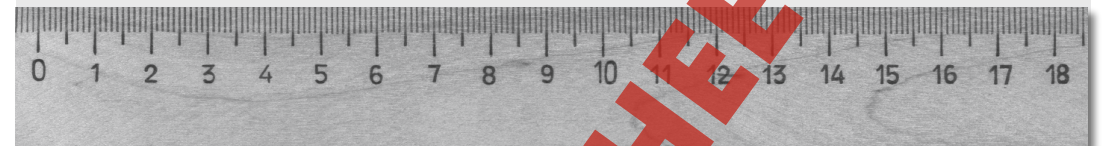
Building One: _____
 Building Two: _____
 Building Three: _____



Task Sheet 2

Scaling Up

- 2) For this activity you will need a ruler. Either standard or metric will do. With the supervision of an adult, measure the length of seven objects in your classroom. Write the length of each object in the chart below. Then, put your object into a scale that could be used to make a map of your classroom. Use either of the following scales: 1 inch = 1 foot (or 1 cm = 10 cm). So, an object you measured to be 2 feet (60 cm) would be listed on the scale as 2 inches (5 cm).



Object	Real Length	Scaled Length
1.		
2.		
3.		
4.		
5.		
6.		
7.		

Reflection



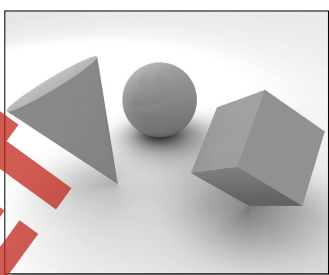
Think about reasons that scales are used in drawings. List three places you might find items that are drawn to scale. Write your thoughts below.



Task Sheet 13

The Secret Formula

- 13) Look at the formulas below. Each shows a way of finding the area of plane figures. Determine the figure that is represented by each formula. Then, draw an example of the figure it represents below each formula. Label the length of each side or important line (you may use real lengths by measuring with a ruler or invent your own lengths). Then, determine the area using the information you have written. Some formulas may have more than one correct answer.



Formula one: $A = \frac{1}{2} b \times h$

Formula two: $A = l \times h$

Formula three: $A = \pi r^2$

Formula four: $A = s^2$

Reflection



Think about the area of the figures determined by formula two and four. If you did not have a formula for these figures, how could formula one and the figure it represents help you determine the area of these two figures?



Task Sheet 14

Turn up the Volume

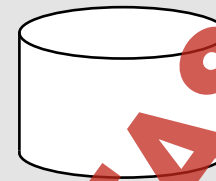
- 14) Casey has three solid figures below. He has to determine the volume of each figure, but has never done this before. Help Casey develop a strategy to determine the volume of each figure. Explain what you think would be the best way to determine the volume.

Figure One:



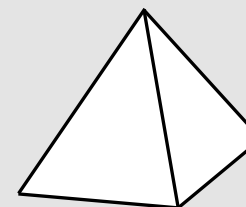
Strategy: _____

Figure Two:



Strategy: _____

Figure Three:



Strategy: _____



Review A

Measurement Conversions

- a) 10,560 feet = _____ inches _____ yd _____ miles
 6000 m = _____ mm _____ cm _____ km
 1000 lbs = _____ oz _____ tons
 16 quarts = _____ cups _____ pints _____ gallons

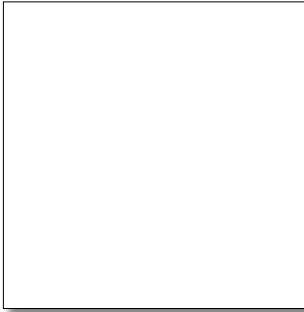
Measurement

- b) Draw the three figures described below. You may use a centimeter ruler and protractor or other measurement devices to help you.

Figure 1: a square with a perimeter of 10 cm (4 in)

Figure 2: an angle that measures 100°

Figure 3: a triangle with a base of 1 inch (3 cm)



Open response

- c) Using two to five sentences, explain how you would find the area and perimeter of a rectangle. You may draw a diagram below to help explain your response.



Review B

Conversions

- a) 2.5 miles = _____ inches _____ ft _____ yd
 3.5 km = _____ mm _____ cm _____ m
 4 tons = _____ oz _____ lbs
 5 gallons = _____ cups _____ pints _____ quarts

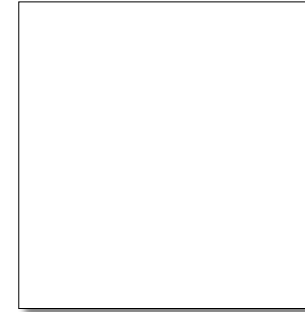
Measurement

- b) Draw the three figures described below. You may use a centimeter ruler and protractor or other measurement devices to help you.

Figure 1: a rectangle with an area of 20 sq. cm (3 sq. in)

Figure 2: an angle that measures 65°

Figure Three: a circle with a radius of 2 cm (0.8 in)



Open response

- c) Using two to five sentences, explain how you would find the volume of a rectangular prism. You may draw a diagram below to help explain your response.



Review C

Conversions

- a) .7 mile = _____ inches _____ ft _____ yd
 3500 cm = _____ mm _____ m _____ km
 16000 oz = _____ lbs _____ tons
 16 cups = _____ pints _____ quarts _____ gallons

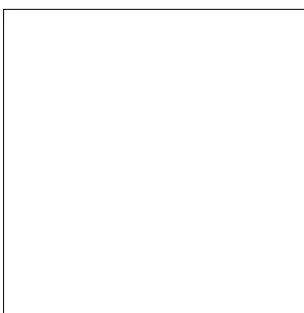
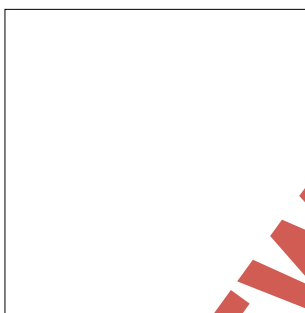
Measurement

- b) Draw the three figures described below. You may use a centimeter ruler and protractor or other measurement devices to help you.

Figure 1: a circle with a diameter of 1 inch (3 cm)

Figure 2: an angle that measures 155°

Figure 3: a pyramid with a base of 3.5 cm (1 in)



Open response

- c) Using two to five sentences, explain how you would find the surface area of a cylinder. You may draw a diagram below to help explain your response.

Time's Up

For this task you will need either a stopwatch or a clock with a minute hand. Your job is to work under the supervision of an adult and to determine a task that everyone in a small group might be able to do (recite a poem, read a passage from a story, do the twelve times table). After you do this:

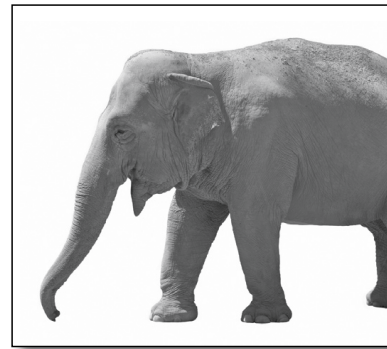
- Time each person in your group performing the task. Record the times on a piece of paper. Denote the number of minutes and/or seconds it takes. This is called the first trial.
- Complete the task again now that all members have done it once. This is called the second trial. See how the times change now that each group member has some practice.
- Place the times onto a double bar chart representing each participant so times can be compared. Place the names in order from shortest to longest based on the times during the second trial.
- Make a list of at least ten observations about the difference in times on the chart from the first trial to the second trial.
- Summarize your findings and share them in class.



Task Sheet 10

Tons, Pounds, and Ounces

10) Tia was making the following chart of items for a science report. She was listing mammals based on their weight in terms of tons, pounds, and ounces. Tia wanted to be sure she listed the weight in each unit to show just how large the mammals were. She was able to find the weight for certain animals in certain measurements. Help her complete the entire chart by calculating the missing information.



Item	Weight in Tons	Weight in Pounds	Weight in Kilograms	Weight in Ounces
Blue Whale	190			
Fin Whale	80			
Right Whale			63,503	
Bowhead Whale				2,080,000
Elephant		15,000		
Hippopotamus	3.5			
Rhinoceros			2,268	
Giraffe		3,000		
Water Buffalo	1.25			
Polar Bear				8,000

EASY MARKING ANSWER KEY

Explore With Technology



Using a website or other computer reference tool, look up the difference between a "short ton" and a "long ton." What does each term mean? Why are these two separate terms sometimes used to describe a ton? Write the information you find in the space below.

10.

- 380,000 lbs, 172,365 kg, 6,080,000 oz
- 160,000 lbs, 72,575 kg, 2,560,000 oz
- 70 tons, 140,000 lbs, 2,240,000 oz
- 65 tons, 130,000 lbs, 58,967 kg
- 7.5 tons, 6,803.9 kg, 240,000 oz
- 10 lbs, 3,175.1 kg, 112,000 oz
- 2.5 tons, 5,000 lbs, 80,000 oz
- 1.5 tons, 1,360.8 kg, 48,000 oz
- 2,500 lbs, 1,134 kg, 40,000 oz
- 0.25 tons, 500 lbs, 226.8 kg

16

11.

Answers may vary.

17

12.

- a) \$10.48
- b) A small soft drink is 1/8 the cost of a chicken cutlet sandwich
- c) Chicken cutlet, potato skins, large soft drink
- d) \$11.53

18

13.

Formula one is for a right triangle

Formula two is for a rectangle, square, or parallelogram

Formula three is for a circle

Formula four is for a square

Student figures may vary.

19

14.



Answers may vary.

Students should come to realize that the volume of a rectangular prism is found by multiplying length x width x height.

Volume of a cylinder is found by finding the radius and using the following formula $\pi \times \text{radius}^2 \times \text{height}$.

The volume of a pyramid is found by multiplying $\frac{1}{2}$ base x height.

20