## WORKSHEET 4-1

1. Draw a line with two points creating a line segment $A B$.
2. Draw an angle and label the points as $C D E$ with point $D$ being the vertex.
3. Draw ray $K L$ with $K$ as the endpoint.
4. Name each picture as a line, a line segment, a ray, or an angle.

5. Using the little symbols we just learned: $\longleftrightarrow \rightarrow$, and , wrife the short name for each of the following. For example, Line EF would be written as EF.
a. Line $A B$
b. Line segment $C D$
c. Ray $B C$
d. Angle EFG

## WORKSHEET 4-2

Look at the drawing below and then answer the questions.


1. Is angle $A B D$ obtuse or acute?
2. Is angle DBC obtuse or acute?
3. What is the measurement of angle $A B D$ ?
4. What is the measurement of angle $D B C$ ?
5. Look at angle $A B D$. Which letter is the vertex?
6. Name the angle that is adjacent to angle DBC.

## CHAPTER 1 REVIEW TEST

All questions will be about this drawing:


1. Is angle $B$ an obtuse angle or an acute angle?
2. Is angle $C$ an obtuse angle or an acute angle?
3. If angle $A$ is $50^{\circ}$, what size are angles $B, C$, and $D$ ?
4. Are angles $A$ and $D$ opposite or adjacent angles?
5. Are angles $A$ and $B$ opposite or adjacent angles?
6. If angle $D$ is $129^{\circ}$, what size is angle $B$ ?
7. If angle $D$ is $129^{\circ}$, what size is angle $C$ ?
8. Why are there arrows on the ends of the lines?
9. Draw a picture to portray each of the following geometric terms.

A Line segment
A Ray
An angle with a vertex $Q$
Any Angle
A Right angle
An Obtuse angle
An Acute angle
Two opposite angles
Two adjacent angles

## WORKSHEET 4-4

1. Name each type of special triangle pictured below.

A.

B.

C.
2. Below is an isosceles triangle. Answer the following questions.

A. Angle $B$ is $70^{\circ}$. What is the measurement of angle $A$ ?
$B$. Side $A C$ is $7^{\prime \prime}$. What is the length of side $A B$ ?
C. Angle $A$ is $80^{\circ}$. What is the measurement of angle $C$ ?
3. Below is an equilateral triangle. Answer the following questions.

A. What is the measurement of angle $B$ ?
B. Side $A C$ is $10^{\prime}$. How long is side $B C$ ?
C. What is the total measurement of angles $A, B$, and $C$ together?

## WORKSHEET 4-4 page 2

4. Below is a right triangle. Answer the following questions.

A. What is the measurement of angle $B$ ?
B. If angle $C$ is $45^{\circ}$, what is the measurement of angle $A$ ?
C. If angle $A$ is $50^{\circ}$, what is the measurement of angle $C$ ?
5. All triangles have 3 angles. If you measure all 3 angles and add them together, what will they total?
6. I'm thinking of a triangle. Two of the angles are $60^{\circ}$. What kind of triangle is it?
7. I have a right triangle. One of the angles measures $50^{\circ}$. What are the measurements of the other two angles?
8. I have a triangle. The measurements of the angles are $30^{\circ}, 60^{\circ}$, and $90^{\circ}$. What type of triangle do I have?
9. What does it take for a triangle to be called an equilateral triangle>
10. What does it take for a triangle to be called an isosceles triangle?
11. Is it possible for one triangle to be all three special triangles?

## WORKSHEET 4-5

1. Think of all the numbers between 1 and 20. Which number looks like two parallel lines?
2. Which two letters of the alphabet look like perpendicular lines?
3. I have a shape with four $90^{\circ}$ angles. Two of the four sides measure 2", the other two sides measure 4". What kind of shape do I have?
4. Which set of lines are parallel to each other?

5. Look at $A, B$, and $C$ above in problem number 4. Which set of lines are perpendicular to each other?
6. Which angle is a 90 degree angle?

7. Which shape is a square?


A


B


C
8. How many dimensions does a plane figure have?

## WORKSHEET 4-6

1. Use $A=b h$ to find the area of this square.

2. Find the area of this rectangle.

3. Your back yard measures 30 feet $\times 40$ feet. What is the area of the back yard?
4. What is the area of a 9 foot tall square?
5. My Geometry book measures $11^{\prime \prime} \times 8^{\prime \prime}$. How many square inches are on the cover?
6. I'm going to put tile on a floor. Each tile is 1 square foot. The floor measures $20^{\prime}$ on one side and $24^{\prime}$ on the other side. How many tiles will I need to cover the floor?

## WORKSHEET 4-7

Find the area of the following triangles using the formula $A=\frac{1}{2}$ bh.
1.

2.

3.

4. Look at triangle $A B C$ and then answer the following questions. You won't need a protractor or a ruler. All you need to know is that it is an equilateral triangle and side $A C=4$ ".

a. What is the length of side $B C$ ?
b. What is the size of angle A?
c. What is the length of side $A B$ ?
d. What is the size of angle $C$ ?
5. Look at triangle DEF and answer the following questions. You won't need a protractor or a ruler. All you need to know is that it is a right triangle.

a. What size is angle E?
b. Angle $D$ is $45^{\circ}$. What size is angle $F$ ?
c. What does the little box in angle E mean?
6. I'm going to paint a triangular shape on the wall. The triangle will be 8 feet tall. The base of the triangle will be 5 feet. How many square feet of wall will I be painting?
7. If I fold any square in half diagonally, what two new shapes will I get?

Check your answers and see how you did. If you got any of the answers wrong, go back and find what you missed. Once you understand everything on this worksheet, you are ready to move on.

## WORKSHEET 4-8

Name each polygon.
1.

2.

3.

4.

5.

6.

7.

8.


## CHAPTER 2 REVIEW TEST

Name the following shapes:
1.

2.

3.


Find the area of the following shapes:
4.

5.
$6^{\prime}$

6.

7.
$11^{\prime}$

8. Name the 3 special triangles.
9. Which of the 3 special triangles has $60^{\circ}$ angles on all 3 sides?
10. Which of the 3 special triangles has at least 2 equal sides?
11. Which of the 3 special triangles has a $90^{\circ}$ angle.
12. What is the total of all three angles in an isosceles triangle?
13. Brianna drew a plane figure on a piece of paper. The figure has 4 angles with opposite sides being parallel. The top and bottom are both 6" long. The 2 sides are both 8 " long. What type of shape did Brianna draw?

## WORKSHEET 4-9

1. Use the Pythagorean Theorem to find the length of this hypotenuse.


24"
2. What type of triangle has a hypotenuse?
3. Triangle $A B C$ is an isosceles triangle. What is the length of side $A B$ ?

4. Find the length of the hypotenuse for triangles $A, B$, and $C$.


## CHAPTER 3 REVIEW TEST

1. Find the length of the hypotenuse.

2. Find the length of the hypotenuse.

$16^{\prime \prime}$
3. Find the diagonal length of this rectangle.


## Chapter 3 Review Test page 2

4. You are told to draw the chalk lines for a football game. The rectangle for the football game is 100 yards long by 25 yards wide. Find the diagonal of this rectangle in order to have a perfectly "square" rectangle. What is the diagonal measurement of the football field?


100 yards
5. Write the Pythagorean Theorem.
6. What is the missing measurement?


If you understand everything up to this point, you are ready to learn about circles. If you are confused by anything we've learned so far, please go back and read this section again until it is simple.

## WORKSHEET 4-11

Use $C=d \pi$ (seedy pie) to find the circumference of each circle.

1.

2.

3.

4.
5. Which Greek symbol do we use to represent 3.14 inches?
6. Mick cut down a tree with a chainsaw. The stump measured 6.28 feet around. What is the diameter of the tree he cut down?
7. Josh bought a round swimming pool. It measures 15 from one side to the other side. Josh wants to put a string of Christmas lights around the pool. How long should the string of lights be?
8. Amanda drove over the bridge from point $A$ to point $B$. It was a 1 mile drive across the bridge. The circle below represents a lake. How long would she have driven, if she had gone around the lake from point $A$ to point $B$ ?


## WORKSHEET 4-12

1. Find the circumference of a circle with a diameter of $3^{\prime \prime}$. Remember to use "seedy pie".

2. Find the area of a circle with a diameter of 8 ". Use "A pie are squared" to figure out the answer and be sure your answer has "inches squared" at the end.

3. Answer this question immediately, don't do any math, just figure it out logically in your head. What is the circumference of a circle whose diameter is 1 inch?
4. What is the radius of a circle that has a circumference of 3.14 inches?

## WORKSHEET 4-13

1. What is the area of this shape?

2. What is the area of this shape?

3. Find the area of the gray and white shape below.


## WORKSHEET 4-14

1. Find the perimeter of the following three shapes: a square, a right triangle and a rectangle.

A.

B.

C.
2. Find the circumference of this circle.

3. Find the perimeter of a square with $3 / 8^{\prime \prime}$ sides.

If you fully understand the meaning of area, perimeter, and circumference, you are ready to learn about volume.

## WORKSHEET 4-15

Find the volume of these shapes.

3. How much water can this fish tank hold? Your answer should be in cubic feet.


## WORKSHEET 4-16

Find the volume of the following spheres.

1. A basketball with a radius of $7^{\prime \prime}$.
2. A globe with a radius of 10 ".
3. A bouncy ball with a radius of $\frac{1}{2}$ inch.

Find the volume of the following rectangular prisms.
4. A box that has a base of $4^{\prime \prime}$, stands $5^{\prime \prime}$ tall, and has a width of $7^{\prime \prime}$.
5. A treasure chest that is $3^{\prime}$ wide, $2^{\prime}$ tall, and $2^{\prime}$ deep.
6. A cube of butter that measures $1^{\prime \prime}$ tall, $2.25^{\prime \prime}$ long, and $1-1 / 8^{\prime \prime}$ wide.
7. What is a space figure?
8. What is the difference between a cube and a square?
9. What is the difference between a circle and a sphere?
10. What is the difference between a cube and a rectangular prism?

## CHAPTER 4 REVIEW TEST

Find the Circumference of the following circles.

1. A circle with a diameter of 10 yards.
2. A circle with a radius of 7 miles.

Find the Area of the following circles.
3. A circle with a radius of 3 feet.
4. A circle with a diameter of 12 inches.

Find the area of the following shapes.

6. Find the perimeter of the shape above.

Find the volume of the following space figures. Vol. of sphere $=\frac{4}{3} \pi r^{3}$


## WORKSHEET 4-17

Fill in the blanks with the appropriate unit of measurement. Answer with meters, liters, or grams.

1. The golf ball traveled 200 $\qquad$ .
2. The letter only weighs 20 $\qquad$ so 1 stamp is enough postage.
3. A bottle of water measures $1 / 2$ $\qquad$ .
4. How many $\qquad$ does a penny weigh?
5. How many $\qquad$ of gas did you put in your car?
6. It took me almost an hour to walk 3000 $\qquad$ .
7. Read the back of the box. How many $\qquad$ of sugar are in this snack?
8. A bag of chips holds 340 $\qquad$ of chips.
9. The fish tank broke and spilt $\qquad$ and $\qquad$ of water on the floor.
10. Did you see Mick jump? He must have traveled at least 3 $\qquad$ .

Once you feel confident that you know the difference between a meter, a liter, and a gram, you are ready to continue.

## WORKSHEET 4-18

1. One paper clip weighs about 1 gram. If I break that paper clip into 1000 equal pieces, each piece will weigh 1 $\qquad$ .
2. I bought 1 liter of pop. I gave 1000 people a few drops each. Each person received 1 $\qquad$ of pop.
3. I'm trying to measure how thin my credit card is. It is hard to measure something so small, but I know if I stack up 1000 credit cards, it will stand 1 meter tall. What is the thickness of just 1 credit card? $\qquad$ .
4. Sarah weighed herself. She weighed over 200 $\qquad$ .
5. Jack filled up the swimming pool. It took over 3 $\qquad$ of water to fill it.
6. The pharmacist said these pills have 100 $\qquad$ of vitamin $C$.
7. I stacked up 10 dimes. The whole stack measured 10 $\qquad$ tall.
8. The speed limit on the highway is 80 $\qquad$ per hour in Canada.
9. The $10-\mathrm{K}$ race was 10 $\qquad$ long.
10. The recipe calls for 5 $\qquad$ of oil.
11. That bottle has 120 $\qquad$ of perfume in it.
12. 1 gram $\times 1000=1$ $\qquad$ ,
13. 1 gram $\div 1000=1$ $\qquad$ .

## WORKSHEET 4-19

Use one of the words from the list below to complete these sentences.

| Kilogram | $=1000$ grams | Centigram $=1 / 100$ of a gram |
| :--- | :--- | :--- |
| Kilometer $=1000$ meters | Centimeter $=1 / 100$ of a meter <br> Kiloliter | Centiliter $=1 / 100$ of a liter |

1. I got a splinter in my hand. It was about 1 $\qquad$ wide.
2. I drove to the store. It was about 3 $\qquad$ away.
3. That fish tank is huge. It must have nearly 100 $\qquad$ of water in it.
4. My doctor said this pill has 500 $\qquad$ of aspirin in it.
5. A small bird feather weighs approximately 7 $\qquad$ .
6. I went on a diet and I lost over 9 $\qquad$ .
7. I put 1 spoonful of water in the dough, that's about 1 $\qquad$ .
8. The diameter of a marble is about 1 $\qquad$ .
9. A bottle of eye drops holds 30 milliliters, that's the same as 3
$\qquad$ _.
10. I ran 5 $\qquad$ in 1 hour.

## WORKSHEET 4-20

Write the abbreviation for each of the following metric units.

1. Meter
2. Centimeter
3. Liter
4. Centiliter
5. Kilogram
6. Gram
7. Milligram
8. Kilometer
9. Milliliter
10. Kiloliter

## CHAPTER 5 REVIEW TEST

1. How many centimeters are in a decimeter?
2. How many decimeters are in one meter?
3. How many millimeters are in a centimeter?
4. How many centimeters are in a meter?
5. What measurement is closest to the width of a pencil lead?
$1 \mathrm{~mm} \quad 1 \mathrm{~cm} \quad 1 \mathrm{dm} \quad 1 \mathrm{~m}$
6. What measurement is closest to the length of a new pencil?
$2 \mathrm{~mm} \quad 2 \mathrm{~cm} \quad 2 \mathrm{dm} \quad 2 \mathrm{~m}$
7. What measurement is closest to the height of a door?
$2 \mathrm{~mm} \quad 2 \mathrm{~cm} \quad 2 \mathrm{dm} \quad 2 \mathrm{~m}$
8. What measurement is most likely the size of a chocolate chip cookie?
$7 \mathrm{~mm} \quad 7 \mathrm{~cm} \quad 7 \mathrm{dm} \quad 7 \mathrm{~m}$
9. What does the prefix Kilo mean?
10. What does the prefix Milli mean?
11. Which is most likely 1 mL ?

A glass of milk Volume of a fish tank 3 rain drops
12. Which is heavier?

3 grams 9 centigrams 1 kilogram

## Chapter 5 Review Test page 2

13. In the United States, we use feet for our base unit to measure length. What is the base unit used in the Metric System to measure length?
14. Your protractor has a 1 decimeter ruler on it. How many millimeters are in 1 decimeter?
15. Write the abbreviations for the following metric units.

Kilometer
Liter
Hectometer
Dekagram
Meter
Deciliter
Centimeter
Milligram
Gram
Milliliter

If you have completed this book and you feel you are ready to take the final test, begin. If you feel confused, even a little bit, you should go back and read this book again. It won't take long to read it a second time.

## FINAL GEOMETRY TEST

1. What is the name of the geometric drawing below?

2. What is the short name for this geometric drawing?


Look at the drawing below and answer the following questions.

3. Angle EBC is a right angle. What is the measurement of angle EBA?
4. Is angle DBC obtuse or acute?
5. Is angle $F B C$ obtuse or acute?
6. Angle EBC is a right angle. If angle EBD is $25^{\circ}$, then what is the measurement of angle $A B D$ ?
7. What angle is adjacent to $A B D$ ?
8. If angle $F B C$ is $45^{\circ}$ what is the measurement of angle $A B F$ ?
9. What angle is adjacent to angle FBC?
10. If angle $A B D$ is $70^{\circ}$ what is the measurement of angle $D B E$ ?

## Final Geometry Test page 2

Look at the picture below and then answer the following questions.

11. What angle is opposite angle $A E C$ ?
12. What is the vertex of angle DEB?
13. What angle is opposite angle CEB?
14. Name an angle that is adjacent to angle AED.
15. If $\angle A E C=15^{\circ}$, what is the measurement of $D E B$ ?
16. If $\angle A E C=15^{\circ}$, what is the measurement of $C E B$ ?

Name each type of special triangle.

18.

19.


## Final Geometry Test page 3

20. Look at triangle $A B C$ below. If $\mathbb{\varepsilon}=30^{\circ}$, what is the measurement of angle $A$ ?

21. Look at triangle $A B C$ below. It is an Isosceles triangle. If angle $A=40^{\circ}$, what are the measurements of angles $B$ and $C$ ?

22. Look at triangle $A B C$ below. What is the measurement of angle $A$ ?


## Final Geometry Test page 4

23. Find the area of this triangle.

24. Find the area of the rectangle.

25. Find the area AND the circumference of this circle.


Final Geometry Test page 5
26. Find the area AND the circumference of this circle.

27. Find the perimeter of the shapes below.

$15 "$

28. Which set of lines are parallel to each other?

A.

B.

C.

## Final Geometry Test page 6

29. Which set of lines are perpendicular to each other?

A.

B.

C.
30. Which side of this triangle is the hypotenuse, $A, B$, or $C$ ?


Use the Pythagorean Theorem to find the length of the hypotenuse for the following two triangles.

$$
31 .
$$

32. 



## Final Geometry Test page 7

33. What is the diagonal length of this square? Your answer will be the square root of something.

34. Find the area of this oddball shape.

35. Find the volume of the cube below.


## Final Geometry Test page 8

36. Find the volume of the rectangular prism below.


20'
37. Use your protractor to find the measurement of the following angles.

38. Who is on the cover of this book?
39. Find the volume of a sphere with a radius of $7^{\prime \prime}$. Use $V=\frac{4}{3} \pi r^{3}$. You can round your answer down to the nearest hundredth.

## Final Geometry Test page 9

40. What is another name for 1000 m in the Metric System?
41. How many milliliters are in 1 liter?
42. The shape below has an area of $54 \mathrm{~cm}^{2}$. What is the length of base $x$ ?

43. How many dimensions are on a plane figure?
44. How many dimensions are on a space figure?
45. Which metric unit of measurement is closest to the US Standard inch?
46. Which metric unit of measurement is closest to the US Standard teaspoon?
47. Which metric unit of measurement is closest to the US Standard yard?
48. Write the Pythagorean Theorem.
49. Which side of the triangle below is the hypotenuse?

50. What is the name of a 3 -sided polygon?
51. What is the name of a 5 -sided polygon?
52. Give 3 names for a 4 -sided polygon.
53. How many sides does an octagon have?
54. How many sides does a hexagon have?
55. Is a circle a polygon?
56. What formula has the nickname Seedy Pie? What do you use this formula for?
57. What formula has the nickname A Pie Are Squared? What do you use this formula for?
