10–1

Name _____ Date _____

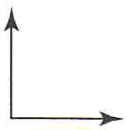
# Homework Practice

5MG2.1

*Measuring Angles*



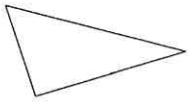
**Use a protractor to find the measure of each angle. Then classify each angle as *acute, obtuse, right,* or *straight*.**

1. 

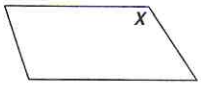
_____

2. 

_____

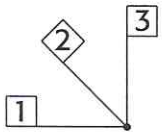
3. 

_____

4. 


_____

**Use the picture to answer Exercises 5 and 6.**




5. What is the measurement between flags 1 and 2?

_____

6. What is the measurement between flags 1 and 3?

_____

## Spiral Review

**For Exercises 7 and 8, use the following information. (Lesson 9–10)**

Alex won 10 of her last 15 softball games.

7. Find the probability of Alex winning her next game.

_____

8. Suppose Alex plays 75 games. Predict how many she will win.

_____

10–1

Name _____ Date _____

# Problem-Solving Practice

5MG2.1

*Measuring Angles*

**Solve.**

1. Kyle ate a small slice of pizza. Was the angle made by the cuts on the slice more likely 30° or 130°?

_____

2. Guadalupe drew a triangle and labeled the vertices *A*, *B*, and *C*. If $\angle ABC$ is one of the angles in the triangle, what are the other two angles?

_____

3. Logan drew a ray on a graph. Its endpoint was at (1, 2), and the ray passed through the point (6, 2). He drew another ray that had the same endpoint and passed through (4, 5). What is the measure of the angle formed?

_____

4. Kaoru drew several different regular polygons. He measured one of the angles inside one of the figures and found that its measure was 108°. Classify the angle as *acute*, *right*, or *obtuse*.

_____

5. Jordan was concerned that a local playground is not accessible to children with disabilities. So, she and her parents built a ramp over the steps at the entrance to the playground. The ramp must be at a 12° angle with the ground. The steps are 1.5 feet high. What is the approximate length of the ramp? Use a piece of graph paper and a protractor to help you. Let the side length of each square grid on the graph paper represent one foot.

_____

6. Derrick and his 7 brothers shared a fruit pie. Their mother cut the pie into 8 equal pieces. What was the angle formed at the point of each slice?

_____

10–2

Name _____ Date _____

# Homework Practice

5MR2.3, 5MG2.1

*Problem-Solving Strategy*



**Solve. Use the *draw a diagram* strategy.**

1. You want to fill your yard with flowers. If you have a yard that is 8 feet by 12 feet, and every 6 square feet you want to add a flower, how many flowers will you plant?

_____

2. You want to fill a bulletin board with your classmates' artwork. If the bulletin board measures 10 feet by 4 feet and you have 45 pieces of artwork that each measures 12 inches × 12 inches to hang, how many pieces of work will *not* fit on the board?

_____

3. The cafeteria serves breakfast. Study the chart below, and tell how many breakfast combinations you could order.

| Breakfast | Drink |
|---|---|
| Muffin | Milk |
| Bread | Juice |
| Fruit | Water |

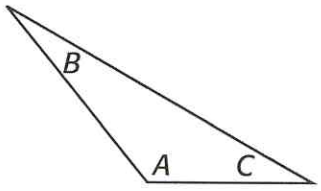
_____

4. You decide to go to the Farmer's Market to buy some fruit. They have bags of peaches on sale for $8.95 and cartons of raspberries for $5.95. You buy two of each. How much will you spend altogether?

_____

## Spiral Review

**Use a protractor to find the measure of each angle. Then classify each angle as *acute, obtuse, right,* or *straight*. (Lesson 10–1)**




5. angle *A* _____

6. angle *B* _____

7. angle *C* _____

10–3

Name _____ Date _____

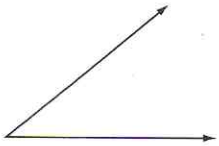
# Homework Practice

5MG2.1

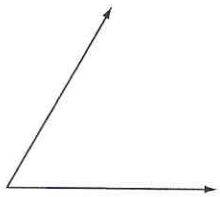
*Estimating and Drawing Angles*



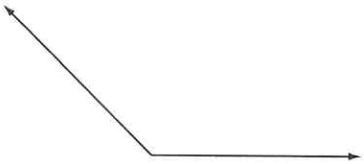
**Estimate the measure of each angle.**

1. 

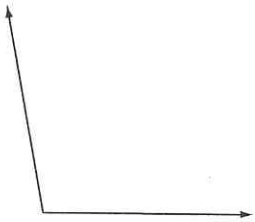
_____

3. 

_____

2. 

_____

4. 

_____

**Use a protractor and a straightedge to draw angles having the following measurements.**

5. 155°

_____

6. 75°

_____

7. Look at the letter Y. Estimate the measure of the angle inside the upper part of the Y.

_____

## Spiral Review

**Solve. Use the *draw a diagram* strategy. (Lesson 10–2)**

8. You have a paper money and coin collection. Your new display frame has room for one coin and one piece of paper money. How many different combinations of paper money and coin can you display in the frame if you have 5 coins and 3 pieces of paper money?

_____

10–3

Name _____ Date _____

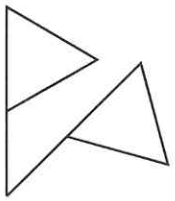
# Problem-Solving Practice

5MG2.1

*Estimating and Drawing Angles*

**Solve.**

1. Estimate the angle formed by the two flag poles.



_____

2. 

Estimate the angle formed by the shaded part of the circle.

_____

3. When you write, what angle does your pencil form with the paper?

_____

4. When your spoon is resting in a bowl, what angle does it form with the bottom of the bowl?

_____

5. In the space below, draw a flower stem that has a leaf. Measure the angle that the leaf forms with the stem.

_____

Name _____ Date _____

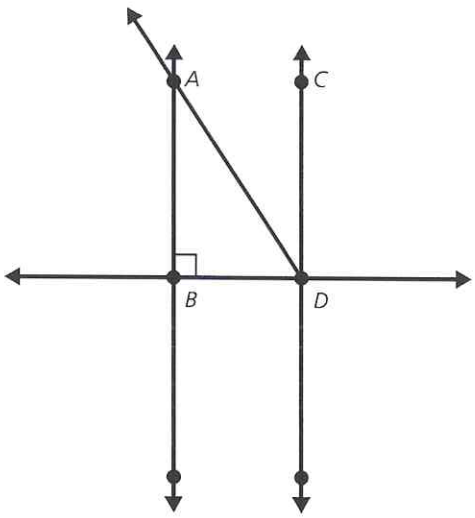
# Homework Practice

5MG2.1

*Parallel and Perpendicular Lines*



**Use the figure to determine if each pair of lines is *parallel, perpendicular,* or *neither*.**




**1.** $\overline{AB}$ and $\overline{CD}$

_____

**2.** $\overline{BD}$ and $\overline{CD}$

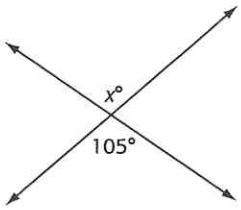
_____

**3.** $\overline{AD}$ and $\overline{CD}$

_____

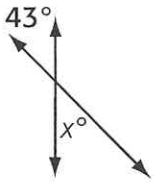
**Find the value of *x* in each figure.**

**4.**




_____

**5.**




_____

## Spiral Review

**Solve. Use a protractor and a straightedge to draw angles having the following measurements. (Lesson 10–3)**

**6.** 33°

_____

**7.** 109°

_____

**8.** 130°

_____

10–4

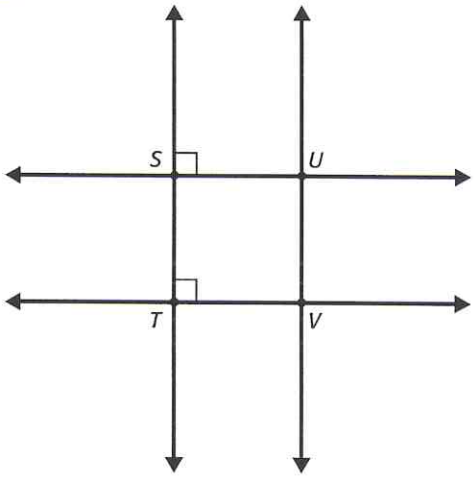
Name _____ Date _____

# Problem-Solving Practice

5MG2.1

*Parallel and Perpendicular Lines*

**Use the figure below to determine if each pair of lines is *parallel, perpendicular,* or *neither*.**




**1.** $\overline{ST}$ and $\overline{UV}$ _____

**2.** $\overline{SU}$ and $\overline{UV}$ _____

**3.** $\overline{TV}$ and $\overline{UV}$ _____

**4.** Draw a line parallel to $\overline{SU}$.

_____

**5.** What lines will be perpendicular to your new line?

_____

**6.** Sit in a chair with your feet flat on the floor. What angle does your lower leg form with your upper leg? Is your lower leg perpendicular or parallel to the floor?

_____

Name _____ Date _____

# 10–5 Homework Practice

5MR1.1, 5MG2.1

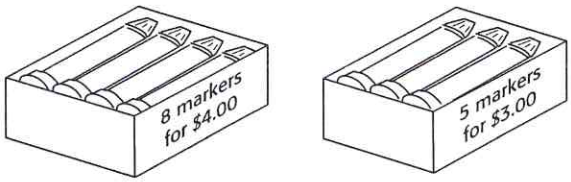
## *Problem-Solving Investigation*



**Use any strategy shown below to solve each problem.**

- Look for a pattern
- Draw a diagram
- Guess and check

**Use the picture to answer Exercises 1–3.**




**1.** Compare the 2 containers of markers. Which is the better buy?

_____

**2.** If you bought 1 of the first box and 3 of the second box, and you gave the cashier three $5 bills, how much change would you get back?

_____

**3.** You buy four boxes of markers and it costs you $16. Which kind did you buy?

_____

## Spiral Review

**Determine whether the statement is *sometimes, always,* or *never* true. Explain your reasoning. (Lesson 10–4)**

**4.** Parallel lines are also perpendicular.

_____

10–6

Name _____ Date _____

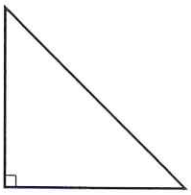
# Homework Practice

5MG2.1, 5MG2.2

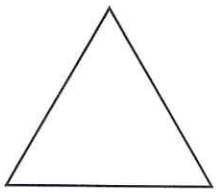
*Triangles*



**Classify each triangle drawn or having the given angle measures as *acute*, *right*, or *obtuse*.**

**1.** 

_____

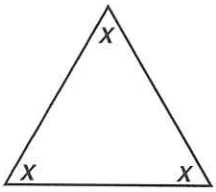
**2.** 

_____

**3.** 70°, 60°, 50°

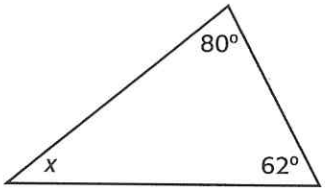
_____

**Find the value of *x* in each triangle. Then classify each triangle as *scalene*, *isosceles*, or *equilateral*.**

**4.** 

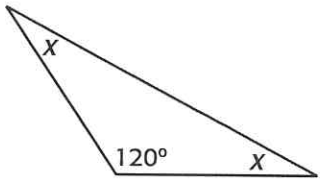

_____

_____

**5.** 


_____

_____

**6.** 


_____

_____

## Spiral Review

**Use any strategy shown below to solve. (Lesson 10–5)**

- Look for a pattern
- Draw a diagram
- Guess and check

**7.** In August Daryl ran 3 miles every other day. In September, he ran 3.5 miles every other day, and if the trend continues, how much will he run in October?

_____

10-6

Name _____ Date _____

# Problem-Solving Practice

5MG2.1, 5MG2.2

*Triangles*

**Solve.**

1. Kendall found that two angles of a triangle were 68° and 86°. What is the measure of the third angle? What type of triangle is it?

_____

2. Tomeka measured the angles of a triangle and found two of them to be 38° and 52°. What is the measure of the third angle? What type of triangle is it?

_____

3. Martin hit a softball from home plate to center field. The center-fielder threw the ball to the first-base person, who threw it back to home plate. What type of triangle did the path of the ball form? Draw a diagram of a softball diamond to help you.

_____

4. Steve has three lengths of fence. He connects them to make a triangular pen for his dog. If the lengths are 5 meters, 6 meters, and 10 meters, what type of triangle is the dog pen?

_____

5. Kate planned a trip using a road map. She will travel northeast from her house to a city that is 240 miles away. Then she will drive southeast to visit her uncle. On the way from the city to her uncle's house, she will stop at a store 125 miles from the city and then continue in a straight line to her uncle's house, which is 115 miles from the store. Then, she will travel west to go home from her uncle's house. On her way home, she will stop at a state park that is 45 miles from her uncle's house and 195 miles from her house. Assuming she travels in a direct and straight path, what type of triangle is formed by her path?

_____

6. Miguel has a ladder with legs of equal length. He opened the ladder and placed it on the floor. Classify the type of triangle formed by the ladder and the floor according to its sides. Next, classify the type of triangle formed by the ladder and the floor according to its angles.

_____

10–7

Name _____ Date _____

# Homework Practice

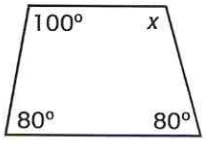
5MG2.1, 5MG2.2

*Quadrilaterals*

Chapter Resources

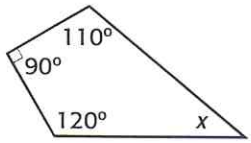
**Find the value of *x* in each quadrilateral.**

**1.**




_____

**2.**



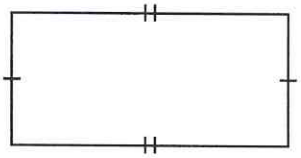

_____

**3.** 75°, 85°, 115°, *x*

_____

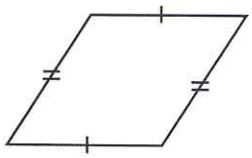
**Classify each quadrilateral.**

**4.**



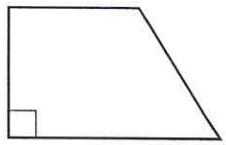
_____

**5.**



_____

**6.**



_____

## Spiral Review

**Find the value of *x* in each triangle having the given angle measures. (Lesson 10–6).**

**7.** 100°, 40°, *x*°

_____

**8.** 45°, 100°, *x*°

_____

**9.** 75°, 30°, *x*°

_____

**Classify each triangle having the given angle measures as *acute*, *right*, or *obtuse*.**

**10.** 120°, 30°, 30°

_____

**11.** 70°, 20°, 90°

_____

**12.** 65°, 45°, 70°

_____

10–7

Name _____ Date _____

# Problem-Solving Practice

5MG2.1, 5MG2.2

*Quadrilaterals*

**Solve.**

1. Linda drew a quadrilateral with angles of 90°, 42°, and 135°. What is the measure of the remaining angle?

_____

2. Natasha's yard is a square. If one side of her yard is 55 feet, what is the perimeter of her yard?

_____

3. Luisa creates her art project in the shape of a rhombus. If she measures two of the angles and they are 50° and 130°, what must the other two angles measure?

_____

4. Tim has a disagreement with his friend, Jan. Jan's yard is 20 meters long and 20 meters wide. Tim's yard is 40 meters long and 10 meters wide. Both yards contain only right angles. Tim says that his yard is both a rectangle and a square. Jan says the same thing about her yard. Who is correct? Explain your answer.

_____

_____

5. Tomoko made a kite for a trip to the beach. She sketched a model of the kite on a piece of graph paper first. The points forming the vertices of the kite were (0, 9), (4, 13), (8, 9), and (4, 0). Was the kite in the shape of any special quadrilaterals? Explain your answer. Graph the points to help you solve.

_____

_____

6. Tomoko is going to ship the kite in Exercise 5 to the beach. She can only ship it in a rectangular box. If the model of the kite was made on graph paper with squares that were 1 centimeter on a side, and the actual kite was 10 times the size of the model, what are the lengths of the sides of the rectangular box she must use?

_____

10–8

Name _____ Date _____

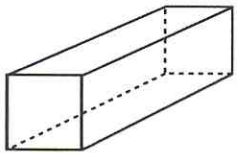
# Homework Practice

5MG2.3

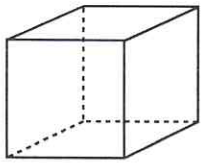
*Drawing Three-Dimensional Figures*



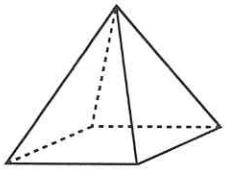
**Draw a top, a side, and a front view of each figure.**

1. 

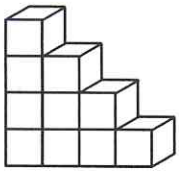
_____

2. 

_____

3. 

_____

4. 

_____

## Spiral Review

**Find the value of *x* in each quadrilateral. (Lesson 10–7)**

**5.** 65°, 125°, 80°, *x*

_____

**6.** 85°, 65°, 105°, *x*

_____

**7.** 90, 90, *x*°, 90

_____

**8.** 120°, 60°, 120°, *x*°

_____

10–8

Name _____ Date _____

# Problem-Solving Practice

5MG2.3

*Drawing Three-Dimensional Figures*

**Solve.**

1. Ricardo made a model of the earth. What kind of three-dimensional figure is it?

_____

2. Diane bought a can of soda. What kind of three-dimensional figure is the can?

_____

3. Gary is playing a board game. When it is his turn, he tosses a kind of three-dimensional figure that is used in many board games. The figure is 6-sided and has a number printed on each side. What kind of figure is it?

_____

How many faces, edges, and vertices does it have?

_____

4. When Ben bought a poster, the salesperson placed it in a tube to protect it. What kind of three-dimensional figure is the tube?

_____

If the tube is slit down its side and laid flat, what shapes would it make?

_____

5. Anna is thinking of a three-dimensional figure. Its top view is a square. Its front and side views are triangles. What is the figure?

_____

6. The Department of Defense headquarters is called the Pentagon. It is a pentagonal prism. Draw a top, front, and a side view of the Pentagon.

_____