**RCDS Summer Math Packet - 2023-2024**

Dear Rising 6th Graders,

**Congratulations** are in order!! As this year comes to a close, it is important to remember some foundational skills from your 5th Grade year at RCDS. In this packet, the building blocks that will set you up for 6th Grade will be divided into 6 week sections.The skills reflected in the packet are concepts we have worked on throughout the entirety of this past school year. I would like to emphasize that your time over the summer is your break, but also a time where things can be forgotten. That being said, enjoy my favorite season "**SUM**"mer :)

**Week #1 -** (July 3) Measurement, Exponents and Order of Operations
**Week #2 -** (July 10) Decimal Operations
**Week #3 -** (July 17) Fraction Operations
**Week #4 -** (July 24) Proportions and Scale Drawings
**Week #5 -** (July 31) Percents
**Week #6 -** (August 7) Basic Geometry

It has been my honor and privilege to have taught such bright students. You are all so special in your own way and I **know** you will succeed in anything you put your mind to. I wish you all the **LUCK** and **SUCCESS** in all of your future endeavors.

All my very best,
Mrs. Forsyth

# Week # 1

Find the equivalent measures.

| | |
|---|---|
| (a) 0.4 km = _____ m | (b) 1.5 km = _____ m |
| (c) 0.09 kg = _____ g | (d) 0.43 m = _____ cm |
| (e) 1.25 ft = _____ ft _____ in. | (f) 4.5 lb = _____ lb _____ oz |
| (g) 3.04 km = _____ km _____ m | (h) 3.8 L = _____ L _____ ml |

Find the value of each of the following.

(a) $120 - 20 \div 5$

(b) $6 \times 2 + 8 \div 2 \times 4$

(c) $(15 + 3) \div 5 \times 5$

(d) $120 \div 12 + 7 \times 8$

(e) $27 + 96 \div 12 \div 4$

(f) $(45 + 27) \div (17 - 8)$

(g) $130 + 50 + 20 + 70 + 50$

(h) $145 - 25 \times 4$

(i) $228 \div 6 \times 2$

(j) $4 - [7 \div (4 + 3) \times 3]$

(k) $[(87 + 9) \div 3 \div 4 + 2] \times (10 - 5)$

(l) $240 + 60 \times [5 \div (6 + 18 - 19)]$

(m) $7 \times (28 - (8 + ((120 - 20) \div 5)))$

# Introduction to Exponents

Write in exponent form. Then find the value.

1. six cubed

_____

2. the fifth power of 3

_____

3. fifty squared

_____

4. the sixth power of 10

_____

5. $25 \times 25 \times 25$

_____

6. $8 \times 8 \times 8 \times 8$

_____

Find the value.

7. $9^3$ _____

8. $13^2$ _____

9. $5^5$ _____

10. $1^8$ _____

11. $30^3$ _____

12. $4^6$ _____

13. $11^3$ _____

14. $10^8$ _____

15. $70^2$ _____

Find the value of $n$.

16. $n^2 = 225$

_____

17. $10^n = 1,000,000$

_____

18. $n^3 = 8,000$

_____

## Mixed Review

Order from *least* to *greatest*.

19. 1.939, 1.393, 3.919, 91.93, 3.199

_____

Order from *greatest* to *least*.

20. 2.345, 2.543, 2.435, 2.534, 2.453

_____

Compare. Write $<$, $>$, or $=$ in each $\bigcirc$.

21. 5.9376 $\bigcirc$ 5.3897

22. 8.639 $\bigcirc$ 8,639

23. 3,384,844 $\bigcirc$ 3,038,484

24. William bought 7 pumpkins for a total of $15.75. How much did each pumpkin cost?

_____

25. What type of graph would you use to display the ages of students in your classroom?

_____

# Prime and Composite Numbers

## Vocabulary

1. A _____ has exactly two factors,
   1 and the number itself.

2. A _____ has more than two factors.

___

List all the arrays for each number. Write *prime* or *composite* for each number.

3. 8

_____

_____

_____

4. 7

_____

_____

_____

5. 12

_____

_____

_____

6. 9

_____

_____

7. 6

_____

_____

8. 5

_____

_____

Write *prime* or *composite* for each number.

9. 30

_____

10. 16

_____

11. 24

_____

12. 31

_____

## Mixed Review

Find the least common multiple for each set of numbers.

13. 6, 7, 3

_____

14. 7, 8, 10

_____

15. 2, 5, 6

_____

16. 3, 4, 7

_____

17. The area of Sharon's garden is 40 sq ft. List all its whole-number possible lengths and widths.

_____

_____

18. Beth has $0.60 more than Suzy. Together they have $8.20. How much money does each girl have?

_____

_____

# Week # 2

1. What is the value of the digit 6 in each of the following?

   (a) 1.658 ☐

   (b) 6.185 ☐

   (c) 3.069 ☐

   (d) 5.746 ☐

2. Fill in the missing numbers.

   (a) 5.04 = ☐ ones ☐ tenths ☐ hundredths

   (b) 6.238 = ☐ ones ☐ tenths ☐ hundredths ☐ thousandths

3. Fill in the missing numbers.

   (a) In 3.864, the digit ☐ is in the thousandths place.

   (b) In 49.73, the digit ☐ is in the tenths place.

   (c) In 12.58, the value of the digit 8 is ☐ .

   (d) In 3.704, the value of the digit 4 is ☐ .

4. Write each of the following as a decimal.

   (a) 7 ones 6 tenths 2 hundredths 3 thousandths ☐

   (b) 4 ones 6 tenths 5 thousandths ☐

   (c) 3 hundreds 8 tens 5 thousandths ☐

   (d) 8 ones 2 thousandths ☐

Express each fraction as a decimal correct to one decimal place.

| | |
|---|---|
| (a) $\frac{8}{9} \approx$ <br><br><br> $9)\overline{8}$ | (b) $4\frac{1}{6} \approx$ |
| (c) $\frac{2}{3} \approx$ | (d) $5\frac{3}{7} \approx$ |
| (e) $4\frac{5}{8} \approx$ | (f) $16\frac{5}{6} \approx$ |

Estimate. Then find the sum or difference.

| (a) 2.398 + 46.2 ≈ | (b) 0.049 + 6.32 ≈ | (c) 5.98 + 34.086 ≈ |
|---|---|---|
| (d) 5.893 − 0.48 ≈ | (e) 45.9 − 3.06 ≈ | (f) 10.055 − 4.8 ≈ |

Multiply.

(a) $0.03 \times 10 =$ ⬚

(b) $0.009 \times 10 =$ ⬚

(c) $0.067 \times 10 =$ ⬚

(d) $0.84 \times 10 =$ ⬚

(e) $2.9 \times 10 =$ ⬚

(f) $0.321 \times 10 =$ ⬚

(g) $5.24 \times 10 =$ ⬚

(h) $35.4 \times 10 =$ ⬚

(i) $6.015 \times 10 =$ ⬚

(j) $412.8 \times 10 =$ ⬚

Multiply.

| (a) 9.54 × 4.2 = | (b) 43.21 × 1.9 = |
|---|---|
| | |

Adam bought 8 notepads at $1.45 each and 10 towels.
He gave the cashier $100 and received $46 change.
Find the cost of each towel.

Adam mixed 3.46 kg of hazel nuts with twice as many kilograms
of almond nuts. He packed the mixture into 9 bags. How many
kilograms of nuts were there in each bag? Give your answer in
kilograms correct to one decimal place.

Estimate. Then find the value of each of the following.

| | | |
|---|---|---|
| (a) $38.4 \div 3 \approx$ | (b) $3.1 \div 5 \approx$ | (c) $62 \div 4 \approx$ |
| (d) $25.9 \div 7 \approx$ | (e) $30 \div 8 \approx$ | (f) $80.1 \div 9 \approx$ |

# Week # 3

Fill in the missing numerator or denominator in each of the following.

(a) $\dfrac{4}{5} = \dfrac{12}{\square}$

(b) $\dfrac{3}{7} = \dfrac{\square}{28}$

(c) $\dfrac{25}{\square} = \dfrac{5}{8}$

(d) $\dfrac{6}{9} = \dfrac{2}{\square}$

(e) $\dfrac{2}{12} = \dfrac{\square}{6}$

(f) $\dfrac{5}{\square} = \dfrac{10}{12}$

Express each of the following as an improper fraction.

| | |
|---|---|
| (a) $1\frac{2}{3} =$ | (b) $1\frac{5}{7} =$ |
| (c) $2\frac{1}{4} =$ | (d) $2\frac{3}{8} =$ |

Express each of the following as a mixed number.

| | |
|---|---|
| (e) $\frac{21}{7} =$ | (f) $\frac{20}{8} =$ |
| (g) $\frac{17}{10} =$ | (h) $\frac{26}{12} =$ |

Find the Greatest Common Factor GCF) of the numbers by listing them (the rainbow)
16 and 24

Find the GCF of the numbers by using Prime Factorization, 14 and 38

) Is the number 25 Prime or Composite?

) Test 120 for divisibility by 2, 3, 5, 6, 9, and 10

Write the Prime Factorization of 30 (use factor tree)

Write the Prime Factorization of 210 (use factor tree)

Add or subtract. Write each answer in its simplest form.

$\frac{1}{6} + \frac{3}{10} =$

$\frac{2}{3} + \frac{1}{12} =$

$1\frac{3}{8} - \frac{7}{12} =$

$1\frac{1}{3} - \frac{7}{10} =$

$3\frac{2}{9} + 1\frac{1}{6} =$

$2\frac{5}{6} + 5\frac{1}{2} =$

$4\frac{1}{6} - 1\frac{2}{3} =$

$3\frac{1}{6} - 2\frac{1}{10} =$

A container has a capacity of 3 L. It contains $1\frac{3}{4}$ L of water.
How much more water is needed to fill the container completely?

Mr. Williams planned to spend $1\frac{1}{2}$ h to cook a meal. He finished the
cooking in $1\frac{1}{12}$ h instead. How much earlier did he finish the cooking?

The total length of two ribbons is $2\frac{3}{4}$ m. If one ribbon is $1\frac{1}{3}$ m long,
what is the length of the other ribbon?

Find the value of each of the following.

(a) $\frac{7}{9} \times \frac{3}{4}$

(b) $36 \times \frac{5}{9}$

(c) $\frac{2}{3} \div \frac{5}{6}$

(d) $3 \div \frac{1}{8}$

Find the value of each of the following.

(a) Divide $\frac{4}{9}$ by 6.

(b) Multiply $\frac{4}{9}$ by 6.

(c) Find the product of $\frac{4}{5}$ and $\frac{5}{8}$.

Divide.

| | |
|---|---|
| (a) $3 \div \frac{3}{4} =$ | (b) $12 \div \frac{3}{4} =$ |
| (c) $10 \div \frac{5}{8} =$ | (d) $15 \div \frac{3}{5} =$ |

Six cups of water is $\frac{2}{3}$ of a jug. Find the total number of cups of water in the jug.

---

Water is poured equally into 4 containers. Each container has 5 cups of water. How many quarts of water are there in the 4 containers?

---

Brian bought 54 tangerines. He gave away $\frac{2}{3}$ of them and ate $\frac{1}{6}$ of the remainder. How many tangerines did he have left?

# Week # 4

## Equal Ratios

Give two ratios equal to the given ratio.

**1.** 8 to 12 _____  **2.** $\frac{3}{5}$ _____

**3.** 9 to 3 _____  **4.** 15 : 35 _____

**5.** $\frac{8}{10}$ _____  **6.** $\frac{7}{8}$ _____

State if the ratios are equal.

**7.** 4 : 8; 1 : 2 _____  **8.** $\frac{3}{6}, \frac{5}{8}$ _____  **9.** 12 to 15, 4 to 5 _____

**10.** $\frac{10}{12}, \frac{15}{18}$ _____  **11.** 15 : 20, 20 : 25 _____  **12.** 10 to 8, 20 to 15 _____

**13.** $\frac{5}{9}$, 8 to 13 _____  **14.** 8 : 14, $\frac{4}{7}$ _____  **15.** 12 to 28, 18 : 42 _____

For exercises 16–19, give three equal ratios.

**16.** A third grade class has 4 boys for every 3 girls.  _____

**17.** A pet store has 5 cat collars for every 8 dog collars.  _____

**18.** A corporation has 2 secretaries for every executive.  _____

**19.** A carnival game has 2 winners for every 7 losers.  _____

Complete each table of equal ratios.

**20.** 8 snakes for every 3 turtles

| Snakes |   |   |   |    |
|--------|---|---|---|----|
| Turtles | 3 | 6 | 9 | 12 |

**21.** 7 dogs out of 12 pets

| Dogs | 7 |    | 21 |    |
|------|---|----|----|----|
| Pets |   | 24 |    | 48 |

**22.** 12 pizzas to 9 lasagnas

| Pizzas | 4 | 8 |   |    |
|--------|---|---|---|----|
| Lasagnas |  |  | 9 | 12 |

**23.** 16 cars to 20 trucks

| Cars |   |    | 12 | 16 |
|------|---|----|----|----|
| Trucks | 5 | 10 |  |    |

**24. Social Science** The ratio of Delaware residents to Maine residents was about 55 : 100 in 1970 and about 66 : 120 in 1990. Are these ratios equal?

# Solving Proportions
# Using Cross Products

Solve each proportion.

1. $\frac{12}{a} = \frac{16}{20}$

a = _____

2. $\frac{2}{8} = \frac{t}{20}$

t = _____

3. $\frac{30}{a} = \frac{20}{18}$

a = _____

4. $\frac{45}{x} = \frac{18}{8}$

x = _____

5. $\frac{u}{5} = \frac{6}{3}$

u = _____

6. $\frac{15}{5} = \frac{6}{a}$

a = _____

7. $\frac{m}{8} = \frac{12}{16}$

m = _____

8. $\frac{40}{y} = \frac{16}{2}$

y = _____

9. $\frac{16}{36} = \frac{g}{45}$

g = _____

10. $\frac{s}{28} = \frac{30}{21}$

s = _____

11. $\frac{4}{5} = \frac{8}{d}$

d = _____

12. $\frac{15}{5} = \frac{12}{c}$

c = _____

13. $\frac{16}{28} = \frac{h}{7}$

h = _____

14. $\frac{2}{k} = \frac{3}{6}$

k = _____

15. $\frac{30}{3} = \frac{j}{2}$

j = _____

16. $\frac{3}{r} = \frac{2}{8}$

r = _____

# What is a Rate?

State if the ratio is a unit rate.

1. $\frac{3 \text{ cats}}{5 \text{ dogs}}$ _____

2. $\frac{1 \text{ ounce}}{\$0.15}$ _____

3. $\frac{12 \text{ inches}}{1 \text{ foot}}$ _____

4. $\frac{20 \text{ miles}}{1 \text{ hour}}$ _____

5. $\frac{6 \text{ pounds}}{1 \text{ dollar}}$ _____

6. $\frac{125 \text{ miles}}{5 \text{ hours}}$ _____

7. $\frac{1 \text{ table}}{6 \text{ chairs}}$ _____

8. $\frac{1 \text{ dollar}}{3 \text{ oranges}}$ _____

9. $\frac{2 \text{ cups}}{1 \text{ pint}}$ _____

10. $\frac{3 \text{ quarts}}{2 \text{ pounds}}$ _____

11. $\frac{4 \text{ books}}{1 \text{ dollar}}$ _____

12. $\frac{13 \text{ feet}}{1 \text{ foot}}$ _____

For each situation, give two equal rates.

13. Robert drove 20 miles in 30 minutes.

_____

14. Helen earned $18 for working 3 hours.

_____

15. A radio station played 15 songs in 1 hour.

_____

16. A breakfast cereal contains 75 raisins in every pound.

_____

17. Becky ran 2 miles in 14 minutes.

_____

18. June bought 3 pounds of asparagus for $2.

_____

# Scale Drawings

## Vocabulary

Fill in the blank.

1. A ratio that compares the distance on a map to the

actual distance is a _____ .

---

Complete the ratio table.

| | | | | | |
|---|---|---|---|---|---|
| 2. | Scale Distance (in.) | 1 | 2 | _____ | 7 | _____ |
| 3. | Actual Length (ft) | 18 | 36 | 90 | _____ | 198 |

| | | | | | |
|---|---|---|---|---|---|
| 4. | Scale Distance (cm) | 1 | 4 | 7 | _____ | 15 |
| 5. | Actual Length (m) | 7 | 28 | _____ | 84 | _____ |

For 6–9, use the drawing of the patio and the scale.

6. What is the width of the pool in units?

_____

7. What is the actual width of the pool?

_____



pool

pool house

**Scale:**
1 linear unit = 4 ft

8. What is the perimeter of the pool house in units? in feet?
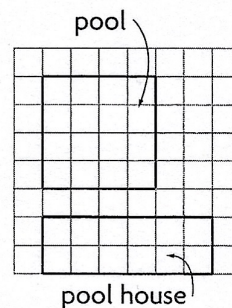
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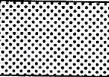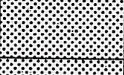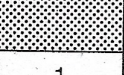
9. What is the ratio of linear units to feet?

_____

# Week # 5

## Exploring Percent Patterns

1. Use the table to help you complete these sentences.

   **a.** Equivalents of tenths are multiples of _____ %.

   **b.** Equivalents of fifths are multiples of _____ %.

   **c.** Equivalents of halves are multiples of _____ %.

| Halves | Fifths | Tenths | Percents |
|--------|--------|--------|----------|
|  |  | $\frac{1}{10}$ | 10% |
|  | $\frac{1}{5}$ | $\frac{2}{10}$ | 20% |
|  |  | $\frac{3}{10}$ | 30% |
|  | $\frac{2}{5}$ | $\frac{4}{10}$ | 40% |
| $\frac{1}{2}$ |  | $\frac{5}{10}$ | 50% |

Complete each pattern. You may use a calculator to help.

2. $\frac{1}{8}$ = _____ %

   $\frac{2}{8}$ = _____ %

   $\frac{3}{8}$ = _____ %

   $\frac{4}{8}$ = _____ %

3. $\frac{1}{4}$ = _____ %

   $\frac{2}{4}$ = _____ %

   $\frac{3}{4}$ = _____ %

   $\frac{4}{4}$ = _____ %

4. $\frac{1}{6}$ = _____ %

   $\frac{2}{6}$ = _____ %

   $\frac{3}{6}$ = _____ %

   $\frac{4}{6}$ = _____ %

5. $\frac{1}{3}$ = _____ %

   $\frac{2}{3}$ = _____ %

   $\frac{3}{3}$ = _____ %

6. Explain how knowing $\frac{1}{2}$ = 50% can help you to find the percent equivalent of $\frac{2}{4}$.

# Converting Percents to Fractions and Decimals

Convert to a fraction in lowest terms.

**1.** 80% _____     **2.** 25% _____     **3.** 78% _____     **4.** 98% _____

**5.** 32% _____     **6.** 30% _____     **7.** 45% _____     **8.** 118% _____

**9.** 65% _____     **10.** 185% _____     **11.** 63% _____     **12.** 28% _____

**13.** 275% _____     **14.** 84% _____     **15.** 104% _____     **16.** 18% _____

Convert to a percent.

**17.** $\frac{7}{10}$ _____     **18.** $\frac{37}{50}$ _____     **19.** $\frac{1}{2}$ _____     **20.** $\frac{18}{25}$ _____

**21.** 0.41 _____     **22.** 0.03 _____     **23.** 0.74 _____     **24.** 0.92 _____

**25.** $\frac{123}{300}$ _____     **26.** $\frac{15}{20}$ _____     **27.** $\frac{31}{20}$ _____     **28.** $\frac{1}{10}$ _____

**29.** 0.67 _____     **30.** 4.10 _____     **31.** 0.8 _____     **32.** 0.137 _____

Give the shaded part of each figure as a percent, fraction, and decimal.

**33.**    percent: _____   fraction: _____   decimal: _____

**34.**    percent: _____   fraction: _____   decimal: _____

**35.**    percent: _____   fraction: _____   decimal: _____

**36.**    percent: _____   fraction: _____   decimal: _____
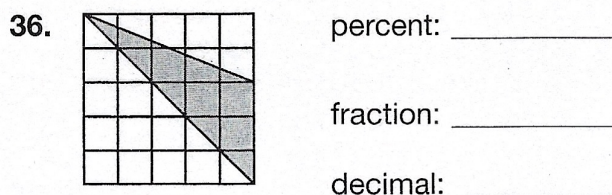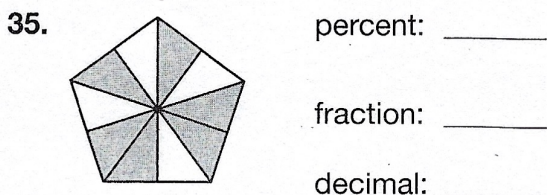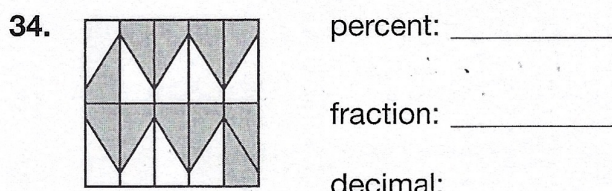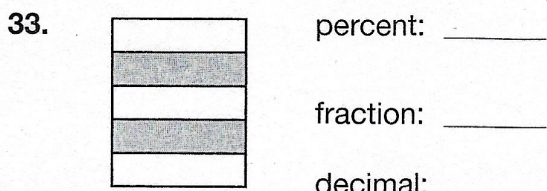
**37.** In 1993, about $\frac{1}{50}$ of American children lived with relatives other than their parents. Convert this value to a percent. _____

**38.** In 1950, $\frac{2}{25}$ of the American population was at least 65 years old. What percent is this? _____

Estimate the percent of each figure that is shaded.
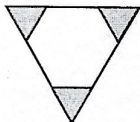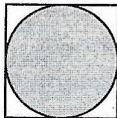
1. _____    2. _____    3. _____
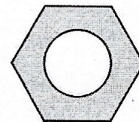
Convert each percent to a decimal and a fraction.

4. 37% _____    5. 40% _____    6. 84% _____

7. 35% _____    8. 170% _____    9. 12% _____

10. 68% _____    11. 8% _____    12. 38% _____

Convert to a percent.

13. 0.47 _____    14. 0.1 _____    15. 0.95 _____    16. 0.74 _____

17. $\frac{7}{10}$ _____    18. $\frac{19}{25}$ _____    19. $\frac{14}{40}$ _____    20. $\frac{27}{50}$ _____

21. 0.02 _____    22. 2.73 _____    23. 0.462 _____    24. 0.87 _____

25. $\frac{11}{2}$ _____    26. $\frac{8}{5}$ _____    27. $\frac{9}{10}$ _____    28. $\frac{8}{25}$ _____

Simplify.

29. 28% of 64 _____    30. 70% of 51 _____    31. 68% of 94 _____

32. 43% of 83 _____    33. 4% of 23 _____    34. 86% of 28.5 _____

# Week # 6

Use the letters to name each angle in three ways.

**1.** _____
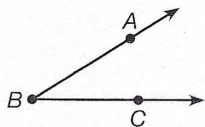


**2.** _____
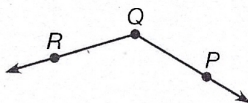


**3.** _____
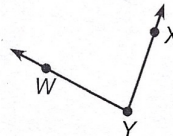


Classify each triangle by its sides. Find the measure of each missing angle.

**4.** _____
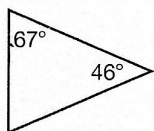


**5.** _____
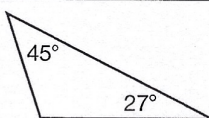


**6.** _____
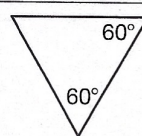


Draw an example of each figure.

**7.** Irregular octagon

**8.** Regular triangle

**9.** Irregular pentagon

Classify each figure in as many ways as possible.

**10.**



_____

_____
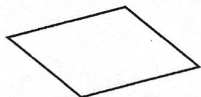
**11.**



_____

_____
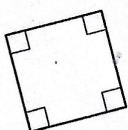
**12. Geography** The figure at the right shows the approximate shape of Manitoba, Canada. Find the approximate area of Manitoba.

_____
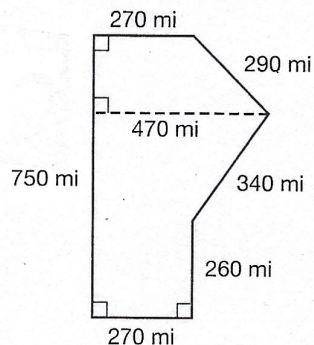
**13. Science** A typical female swallowtail butterfly weighs about $\frac{11}{20}$ gram. Find the weight of 12 female swallowtails.

_____

# Triangles

◆ One way to classify triangles is by the lengths of their sides.
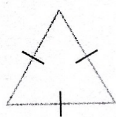
equilateral triangle:
3 equal side lengths
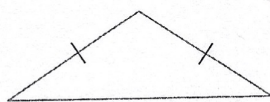
isosceles triangle: at least
2 equal side lengths
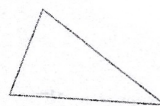
scalene triangle:
no equal side lengths

◆ Another way to classify triangles is by the measures of their angles.
These triangle names are related to the angle names.
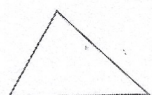
acute triangle:
3 acute angles
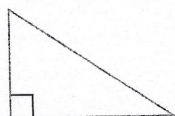
right triangle:
1 right angle
2 acute angles

obtuse triangle:
1 obtuse angle
2 acute angles

## MORE PRACTICE

**Classify the triangle in two ways.**

1.

_____

2.

_____

3.

_____
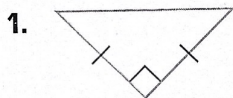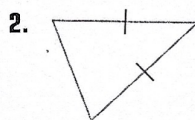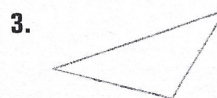
**Try to draw a triangle for the given description. Write *possible*
or *impossible*.**

4. isosceles and acute

5. scalene and obtuse

6. isosceles and right

_____

_____

_____

7. Explain why one triangle can be classified in two ways.

_____

_____

**Classify the triangle in two ways.**

1. The triangle has 3 acute angles and exactly 2 sides of equal length.

   _____

2. The triangle has 2 sides of equal length and 1 right angle.

   _____

3. The triangle has all different side lengths and 1 obtuse angle.

   _____

4. The triangle has 3 acute angles and no equal side lengths.

   _____

5. Use a ruler to draw three isosceles triangles. Each triangle should be classified differently based on its angles.

6. The perimeter of an isosceles triangle is 54 ft. The two sides with equal lengths are both 6 yd long. What is another name for this triangle? Which name better describes the triangle?

   _____

   _____

7. The perimeter of a triangle is 100 cm. Two sides are 29 cm and 42 cm long. Classify the triangle according to side lengths. Explain.

   _____

   _____

   _____

**Write About It**

8. Henry draws an acute triangle. He can classify it according to its side lengths in two different ways. How is this possible? What kind of triangle does he draw?

   _____

   _____

   _____

Find the area of the following triangles. Use the formula, **Area = $\frac{1}{2}$x (base x height)**.

1.

2 m
4 m

Area = _____

2.

2.5 m
6.5 m

Area = _____

3.

5 ft
10 ft

Area = _____

4.

100 km
275 km

Area = _____

5.

9 m
26 m

Area = _____

6.

4.5 cm
3.5 cm
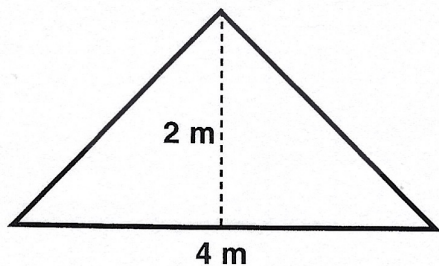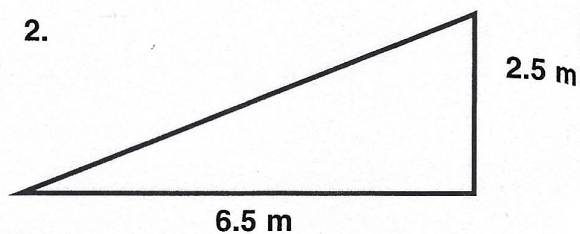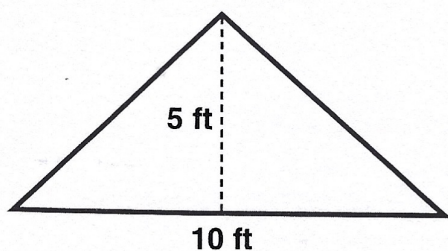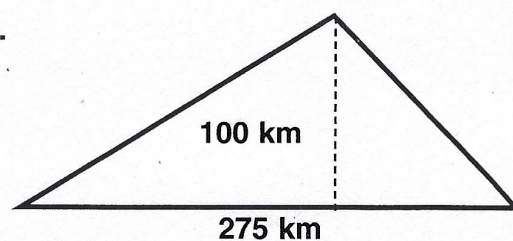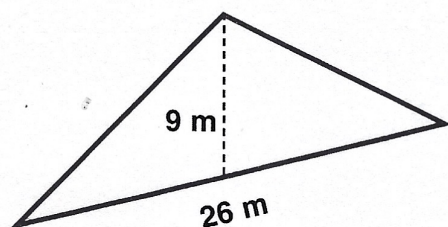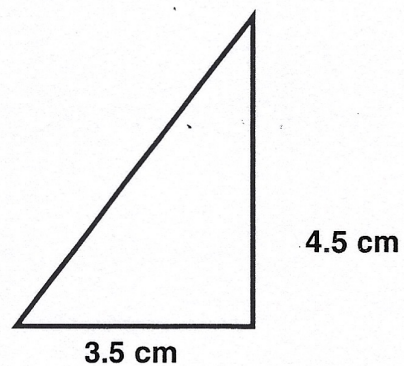
Area = _____

Find the area of the following rectangles or squares. Use the formula,
**Area = length x width.**

1.
3 ft

1 ft

Area = _____

2.

3 mi

3 mi

Area = _____

3.
7 cm

2 cm

Area = _____

4.

35 mm

20 mm

Area = _____

5.

8 m

8 m

Area = _____

6.
3.5 in

1.5 in
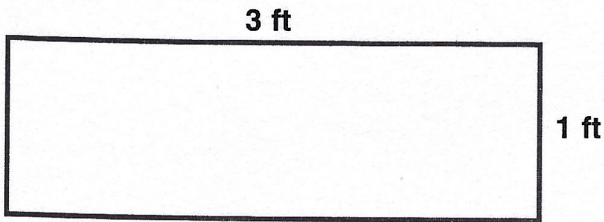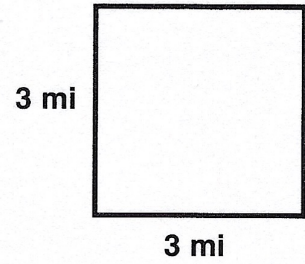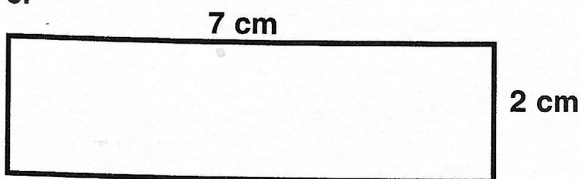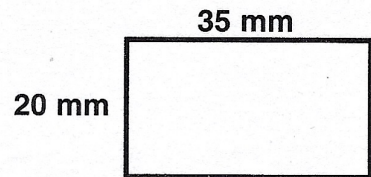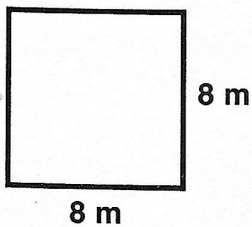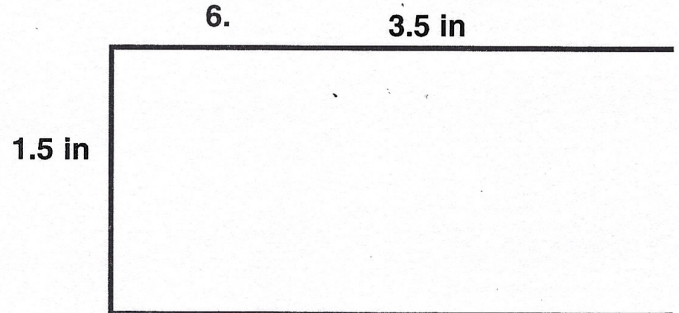
Area = _____

# Exploring Area of Parallelograms

Use the formula $A = b \times h$ to find the area of each parallelogram. Fill in the missing numbers.

**1.**



6 m

14 m

$A = $ _____ $\times$ _____

$A = $ _____ m$^2$

**2.**



3 cm

8 cm

$A = $ _____ $\times$ _____
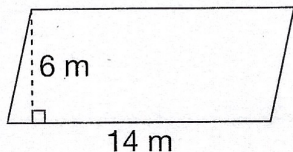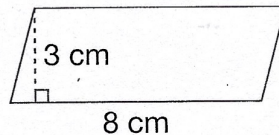
$A = $ _____ cm$^2$

## Find each area.

**3.**



_____

**4.**



_____

**5.**



_____

**6.**



5 yd

8 yd

_____

**7.**



2 cm

9 cm

_____

**8.**



10 m

7 m

_____
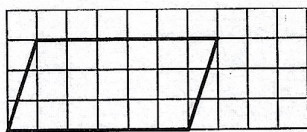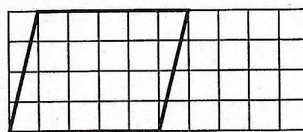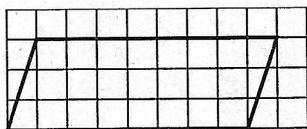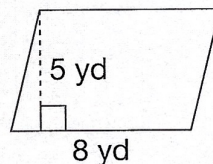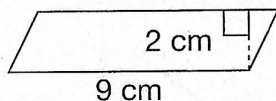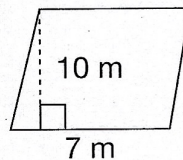
## Find each missing base or height.

**9.**



$A = 24$ in$^2$

4 in.

_____

**10.**



9 ft

$A = 45$ ft$^2$

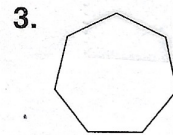_____

**11.**



4.6 cm

$A = 39.1$ cm$^2$

_____
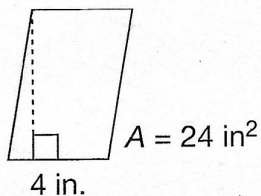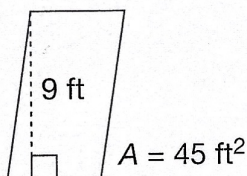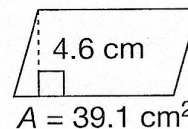
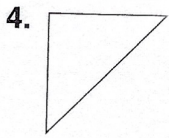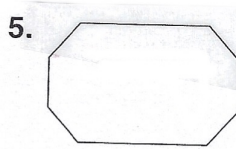Classifying Polygons - Find the sum of the angle measures in each figure.

Use the formula (n - 2)180.          n = number of sides of polygon.
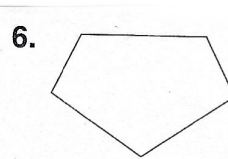
1.

_____

2.

_____

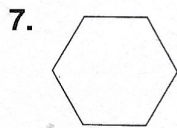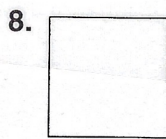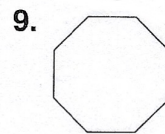3.

_____

4.

_____

5.

_____

6.

_____
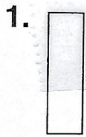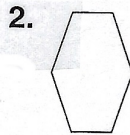
Find the angle measures in each regular polygon.

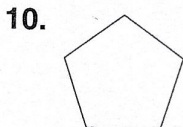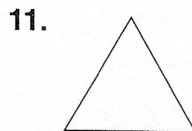1) Find the sum of the angles by using formula   (n - 2)180.
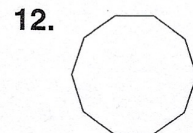2) Divide the sum of angles by the number of sides to find what one angle measures.

7.

_____

8.

_____

9.

_____

10.

_____

11.

_____

12.

_____

# Circles

Find the circumference of each circle, both in terms of $\pi$ and to the nearest tenth. Use 3.14 for $\pi$.

$$C = \pi d$$
$$C = 2\pi r$$

**1.** circle with radius 10 in.

**2.** circle with diameter 13 cm

**3.** circle with diameter 18 m

**4.** circle with radius 15 ft

**5.** circle with radius 11.5 in.

**6.** circle with diameter 16.4 cm

Find the area of each circle, both in terms of $\pi$ and to the nearest tenth. Use 3.14 for $\pi$.

$$A = \pi r^2$$

**7.** circle with radius 9 in.

**8.** circle with diameter 14 cm

**9.** circle with radius 20 ft

**10.** circle with diameter 17 m

**11.** circle with diameter 15.4 m

**12.** circle with radius 22 yd

**13.** Graph a circle with center (0, 0) that passes through (0, −3). Find the area and circumference, both in terms of $\pi$ and to the nearest tenth. Use 3.14 for $\pi$.

(The circle is drawn for you)

$r = 3$
$d = 6$