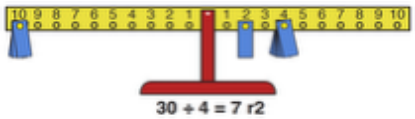
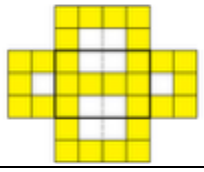
Most recent update: August 25, 2026

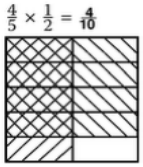
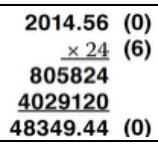
RightStart™ Mathematics

Corrections and Updates for Level F / Grade 5 Lessons and Worksheets, second edition

LESSON/WORKSHEET		CHANGE DATE	CORRECTION OR UPDATE
Lesson 7		04/18/2018	The Quotient and Remainder game instructions should read: Place the **dividend** card, the multiplication card, first in the row, as shown below."
Lesson 7		06/02/2025	On the second page, in the Remainders on the math balance paragraph, the third sentence should read: Then put weights on the **4-peg** until it is too many, then remove one. [**seven**] The graphic and label are also changed as shown here. Finally, an explanation has been added: Weights may be hung on both the front and back of the math balance arm. 
Lesson 8		11/11/2020	On the second page under the Summarize heading, the second sentence should read, "... the remainder of the sum will **equal the sum of** the remainders of the two orignal numbers" rather than "... the remainder of the sum will add up to the remainders of the two orignal numbers."
Lesson 9		11/11/2020	On the first page in the middle of the page, it should read "What is 40 divided by 2? [20] Write the 2 in the **tens** place as shown below" ratherthan "write the 2 in the hundreds place…"
Lesson 13		10/02/2024	On the second page, right above the Worksheet 4 heading, the check number for 240 should be **(6)**, not (0).
Lesson 16	Worksheet 6	01/07/2019	The second paragraph of Information on the worksheet (and written in the lesson) should read "In the expression 3^2, the exponent 2 means that **the number 3 is multiplied *two* times**." See attached **pdf** for the worksheet.
Lesson 17		08/25/2026	On the second page, in the fourth paragraph, it should read as follows: … and tell her to find it on her calculator [32] Ask: How did you do it? [pressed **(=)** four more times] rather than [pressed (2) four time times]
Lesson 18		10/09/2023	On the second page, we added an explanation for the solution for Problem 4: **For the first solution, 72 + 32, see the seven beads on the seven rows, then add the three beads on the three rows. For the second solution, 10 × 3 + 7 × 4, mentally combine the first three rows, removing the gap between the seven beads and the three beads. This will then show 10 × 3. Then the remaining seven beads on the four rows create the additional 7 × 4.**

Lesson 20		04/07/2026	The paragraphs on Multiplying by 10 and Dividing by 10 have been changed to be more clear and more accurate. See attached **pdf**.
Lesson 24		10/06/2020	On the second page after the second set of abacuses, it should read "Next tell her… add 15 hundredths and 6 **hundredths**", not 6 hundreds.
Lesson 36		11/14/2025	When measuring the width of the Basic cards, the numbers will vary depending on which version of the card decks are being used. See attached **pdf** for possible measurements.
Lesson 40	Worksheet 29	01/07/2019	In the warm-up, the second sentence referring to dividing by the same number has been removed. See attached **pdf**.
Lesson 41		12/29/2017	On the second page in the middle of the page at the end of the paragraph, it should read "What is the expression after multiplying by **10**? [7.5/5]" It previously read 100.
Lesson 46		08/22/2023 03/27/2019	In the first paragraph, Introducing long division, the second set of graphics, a explanation was added on the right: In this example of 195 ÷ 21, the quotient, 9, is provided here because the focus is on writing the product of 21 × 9, not finding how many 21s are in 195. Finding the quotient will be taught in a future lesson. Under the section Finding Remainders, the last example should read 26)210 with **8 as the quotient and 2 as the reminder**, not 7 as the quotient and 28 as the remainder.
Lesson 51		10/10/2022	On the second page, the the explanation should read "… divide **5 by 12** on the calculator …" rather than "… divide 12 by 5 on the calculator …"
Lesson 54	Worksheet 42-B	12/29/2017	The last equation in the "<, >, or =" section should read **87 × 32.5 ÷ 87**, not 87 ÷ 32.5 × 87 as printed. Answer is the lesson book is correct.
Lesson 57	Worksheet 45	01/05/2026	In the middle of the worksheet, there is a question about the last time a year was a perfect square. It has been changed: The year **2025** was the last time that a year was a perfect square. The number **2025** is $\mathbf{45^2}$. What year will be the next perfect square? The answer, found at the top of the second page in the lesson book, is $\mathbf{45^2 + 45 + 46 = 2025 + 91 = 2116}$.
Lesson 57		03/17/2019	On the second page, at the bottom of the "Squaring a sum" paragraph, the equation should read $(3 + 2)^2 = 3^2 + 2^2 + 2 \times (3 \times 2)$, not $(3 + 2)^2 = 3^2 + 2^2 + 2 \times (3 + 2)$.
Lesson 58		01/13/2025	On the second page, at the end of the first paragraph under Square roots on a calculator, the answer for the square root of 31 is close to **5.6**, not 5.5.
Lesson 60	Worksheet 48	12/28/2022	Problem 1 should ask for measurements **in centimeters**, not tenths of a centimeter. Problem 2 should ask for measurements in **hundredths of a centimeter** for Figure 4, not tenth of a centimeter. See attached **PDF**. In the lesson, the solutions for Problem 2, Figure 4 Side of C should be **3.30 cm**, not 3.3 cm.

<table>
<tr><td>Lesson 60</td><td></td><td>07/02/2024</td><td>A note has been added next to the answers for Problem 2, Figure 4: The actual calculation for √10.73 is 3.27566787083. Although many will round the answer to 3.28 cm, measuring 3.28 cm precisely with the provided tools is not possible. Therefore, if the child records 3.28 cm as the Side of C, it is correct. Then, the measurement of 3.3 cm, given rounding, is “the same” as the calculated measurement.</td></tr>
<tr><td>Lesson 61</td><td></td><td>06/22/2023</td><td>The three answers Problem 1, Figure C, are wrong. Correct answers are highlighted.
<table>
<tr><th></th><th colspan="3">Figure B</th><th colspan="3">Figure C</th></tr>
<tr><th></th><th>1 small square</th><th>2 small squares</th><th>Large square</th><th>1 small square</th><th>2 small squares</th><th>Large square</th></tr>
<tr><td>Area in △</td><td>4</td><td>8</td><td>8</td><td>8</td><td>16</td><td>16</td></tr>
<tr><td>Side in cm</td><td>5</td><td></td><td>7</td><td>7</td><td></td><td>10</td></tr>
<tr><td>Area in cm^2</td><td>25</td><td>50</td><td>49</td><td>49</td><td>98</td><td>100</td></tr>
<tr><td>Side in mm</td><td>50</td><td></td><td>70</td><td>70</td><td></td><td>100</td></tr>
<tr><td>Area in mm^2</td><td>2500</td><td>5000</td><td>4900</td><td>4900</td><td>9,800</td><td>10,000</td></tr>
<tr><td>Side in in.</td><td>2</td><td></td><td>2.8</td><td>2.8</td><td></td><td>3.9</td></tr>
<tr><td>Area in in^2</td><td>4</td><td>8</td><td>7.8</td><td>7.8</td><td>15.6</td><td>15.2</td></tr>
</table></td></tr>
<tr><td>Lesson 64</td><td></td><td>04/18/2018</td><td>The answer for the last question in the Warm up should be "multiply a side by itself or $A = s^2$," not "multiply a side by 4 or $A = s^2$."</td></tr>
<tr><td>Lesson 64</td><td>Worksheet 52</td><td>04/11/2018</td><td>In the last chart on the page, the middle heading should read Boundary Pairs – 1, not Boundary Pairs. See attached pdf.</td></tr>
<tr><td>Lesson 66</td><td>Worksheet 54</td><td>04/18/2018</td><td>Questions should read "Are the formulas for finding… all correct?", not ""Are the formulas for finding… are correct?" See attached pdf.</td></tr>
<tr><td>Lesson 67</td><td></td><td>01/07/2019</td><td>The height measurements for the second and third triangles in Problem 2 should be 1.2, not 1.0. This changes the area to 0.78 in^2, not 0.7 in^2. See attached pdf for the second page of the lesson.</td></tr>
<tr><td>Lesson 67</td><td>Worksheet 55</td><td>01/07/2019</td><td>The instructions and figures have changed slightly. See attached pdf.</td></tr>
<tr><td>Lesson 70</td><td></td><td>03/01/2023</td><td>On page two, the formula for the bottom triangle should read "A(bottom) = $^1/_2 w_2 h$" not "A(top) = $^1/_2 w_2 h$."</td></tr>
<tr><td>Lesson 70</td><td>Worksheet 58</td><td>01/07/2019</td><td>The second sentence in Question 1 should read, "Use a tangram to draw the height for both triangles using the horizontal lines as the base." See attached pdf.</td></tr>
<tr><td>Lesson 73</td><td></td><td>05/04/2021</td><td>On the second page under Finding Volume, the second paragraph should ask the child to make three more identical arrays, not four more.</td></tr>
<tr><td>Lesson 74</td><td></td><td>02/16/2025</td><td>On the top of the second page, the explanation should reference that ten square panels will be missing, not two panels. Also added is a diagram of one way the construction could work.
 </td></tr>
<tr><td>Lesson 74</td><td></td><td>10/05/2025</td><td>On the top of the second page, the second paragraph should read: Ask: How many times greater is the second prism compared to the first prism? [24 ÷ 6 = 4] How could you imagine the four smaller prisms fitting in the larger prism? [two turned sideways on the bottom row and two more on the upper row]</td></tr>
<tr><td>Lesson 75</td><td></td><td>02/15/2018</td><td>On the second page, the calculation for the triangular prism should read 1/2 × 2.5 × 2.1 for the base, calculating the volume at 19.7 cm^3.</td></tr>
</table>

Lesson 76		04/11/2018	On the second page, last paragraph under the Problem 4 heading, the answer should read **1,000,000,000**, not 1,000,000.000.
Lesson 78		08/22/2023	The answers for the first page of the worksheet, finding the area of the trapezoid, should have an answer of 21.6 m^2, not 21.6 m.
Lesson 91		04/18/2018	First answer for the warm up should be 7 11/9 = 8 **2/9**, not 8 2/5.
Lesson 91		10/10/2022	On the second page, at the end of the second paragraph under Finding more multiples, it should read "Try it for 8 and 6: Is **16 a multiple of 6**? [no] Is **24 a multiple of 6**? [yes] So a common multiple of 8 and 6 is 24." The next paragraph should read "Starting with 9, is **9 a multiple of 7**? [no] Is **18 a multiple of 7**? [no] Continue until you get to 63. Ask: Is **63 a multiple of 7**? [yes] The first common multiple of 9 and 7 is 63."
Lesson 94		04/18/2018	Answer for the third Warm Up problem should be **1 17/30**.
Lesson 99		12/15/2019	The graphic for the fourth equation is incorrect. Here is the corrected answer. 
Lesson 106		01/07/2019	The answers for the previous day's worksheets has an incorrect answer (although it is right for Lesson 105). The third expression in the second column, 5/6 ÷ 4/6, should be **5/4**, not 4/3.
Lesson 116		06/03/2020	On the second page, for possibility 3 as part of Problem 2, add the clarifier that the one-way street **goes south**. For possibility 4, add the clarifier that the one-way streets **go south and go east**. Answers are NS **NE** WE WS.
Lesson 117		10/06/2020	An explation was added across from the six combinations of tiles: **Some children may need encouragement to approach the combinations systematically. For example, if blue is the first tile, what are the other possibilities? If the red tile is the first tile, where could the blue and yellow tiles go?** A second explanation was added across from the question about the number of possibilities for the first position: **The first position is the first tile in the sequence, the second position is the middle tile, and and the third position is the last tile.**
Lesson 117	Worksheet 98	10/06/2020	Problem 3 has been changed slightly. It now reads "A unicycling relay team has four members **either male or female**. The team captain decides the order that they race. How many possibilities are there?"
Lesson 120		03/26/2019	The warm up has the child divide 48 by 8 then 6 and the lesson gives the answer for dividing by 48 by 6 then 8. The lesson book should read 48: 8) 17418.24 is **2177.28**, not 2903.24, then 6) 2177.28 is 362.88 which is correct.
Lesson 125		10/06/2020	A partial product is in error. It should read **4029120**, not 4929120. 

Lesson 131		04/18/2018	Last question in the conclusion should read: What is 20 millimeters divided by **1 centimeter**? [2], not What is 20 millimeters divided by 10 centimeters? [2]
Lesson 134	Worksheet 115	04/18/2018	Information at the top of the page, conversion for km needs to read: 1 km = **1000 m**, not 1000 cm. See attached **pdf**.
Lesson 134	Worksheet 115	08/01/2021	The last question in Probem 3 should read: Round your answer to one decimal **place**, not one decimal point.
Lesson 136		10/01/2020	On the second page in the middle of the page below the equation t = 1 hr/200 km × 282 km = 1.41 hr, it uses dimentional analysis to change **.41** hours, not .42, to minutes. The next equation should read **.41** hr × 60 min/1 hr = **24.6** min, not .42 hr × 60 min/1 hr = 25.2 min.
Lesson 136		12/15/2019	On the top of the second page, after the third word problem, the following three paragraphs are added. **Ask him to identify what he knows [distance and rate] and what he is looking for. [time]** **Refer to the previously written formula, rate = distance/time and write: time = distance/rate.** **Say: This is another way we could write this relationship. Using this, solve the problem. Solution is below.** An explanation was also added: **Sometimes putting in a "simple" number, like 3 = 6/2 in place of *r* = *d/t*, helps identify other ways to write the equation, such as 2 = 6/3 or *t* = *d/r*.**
Lesson 137	Worksheet 118	12/15/2019	The dimensions for the carton have been changed to **9.7 cm × 9.5 cm × 19.2 cm**, not 9.3 cm × 9.3 cm × 18.7 cm. The volume of the carton is **1769 cm^3**, not 1617 cm^3.
Lesson 139		04/18/2018	Answer for Worksheet 120-A, under the <, >, or = section, 45 days **<** 2 months.
Lesson 142		07/24/2024	On the second page, third paragraph under the Follow-up Question heading, the third question should read "What are **six** names for a square? [rhombus, rectangle, **kite,** parallelogram, quadrilateral, and polygon]" not five names for a square with the omission of "kite."
Lesson 142	Worksheet 123	04/18/2018	Second to last question and answer for Worksheet 123 should read: What is the name of a quadrilateral with only two sides **parallel**? Answer trapezoid is correct. See attached **pdf**.
Lesson 145		07/02/2024	In the warm up, the first answer should be [90º, 360 ÷ **4**], not [90º, 360 ÷ 90].
Lesson 145		09/01/2025	The older Safe-T Compass is being replaced by the newer Slide N' Measure Compass. See the instructions for both compasses with the attached **pdf**.
Lesson 146		01/19/2024	On the second page, the Enrichment question should read "What are two methods you can use to find the area in the triangle **surrounding** the square?", not surrounded by the square.
Lesson 150	Worksheet 130-1	01/07/2019	Question 22, 151.89 × 8.3 should be **1260.687**, not 1260.678.
Lesson 150	Worksheet 130-3	12/16/2019	Question 74 has been changed to "How many **faces** does a **hexagonal** prism have?" Answer is **8**, not 6.
Lesson 150	Worksheet 130-4	11/16/2020	On the top of page 301, it should say to plot point *D* to make figure *ABCD* a **rectangle**, not a square.

Name: _____

Date: _____

Warm-Up

Divide. Use check numbers to check your answers.

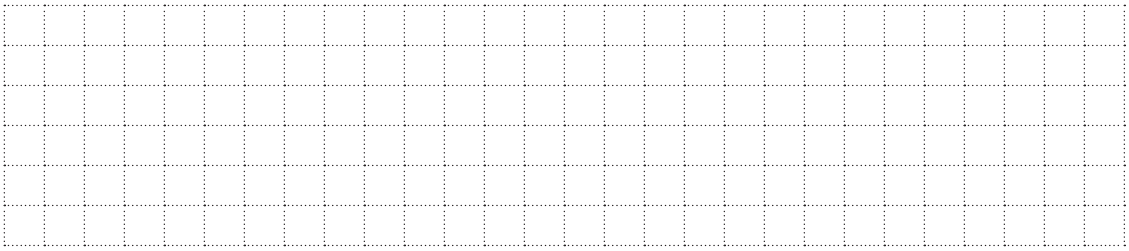
$4\overline{)98765}$ $6\overline{)98765}$ $8\overline{)98765}$

INFORMATION: ***Exponents*** **are a shortcut way of writing a number multiplied by itself a number of times. The exponent is the small number written above the line.**

In the expression 3^2, the exponent 2 means that the number 3 is multiplied *two* times. It means 3×3. We usually read it as 3 *squared*. In the same way, 4^2 means 4×4.

Write 5 squared using exponents and using multiplication. _____ _____

Draw 1^2, 2^2, 3^2, 4^2, and 5^2 squares on the grid below. Label them and find the values.



On the multiplication table, evaluate and circle 1^2, 2^2, 3^2, 4^2, 5^2, 6^2, 7^2, 8^2, 9^2, and 10^2.

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

Evaluate the following expressions.

$(5^2 - 2^2) \div (3 + 4)$ _____

$(3 + 1)^2 - (4 + 6)$ _____

$[10^2 \times (1 + 4)] \div 2$ _____

$\frac{1}{2} \times 2^2 + \frac{1}{2} \times 4^2$ _____

$[(10^2 - 50) - (40 + 8)]^2$ _____

$[(5^2 - 4^2) - (5 - 3)^2] + 1^2$ _____

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ACTIVITIES FOR TEACHING CONTINUED:

Tell the child to read the following:

3^4 [3 to the fourth power]

Finding exponents with a calculator. Give the child the calculator. Say: To find the powers of 2, start by entering (2). Then press (×)(×). Ask: What letter now shows on the display? [*K*] What sign shows on the right side of the display? [the multiplication sign (×)] Tell her that the *K* stands for constant and this means the calculator is set for multiplying by 2s.

Tell her to press (=) over and over. Ask: What happened? [4, 8, 16, . . .] What did the calculator do? [multiplied by 2]

Write: 2^5

and tell her to find it on her calculator. [32] Ask: How did you do it? [pressed (=) four more times]

Tell her to find the following:

3^4 [81] 4^3 [64] 10^4 [10,000]

Worksheet 7. Give the child the worksheet and tell her to complete it. The solutions are below.

2^1	**2**	3^1	**3**	10^1	**10**
2^2	**4**	3^2	**9**	10^2	**100**
2^3	**8**	3^3	**27**	10^3	**1000**
2^4	**16**	3^4	**81**	10^4	**10,000**
2^5	**32**	3^5	**243**	10^5	**100,000**
2^6	**64**	3^6	**729**	10^6	**1,000,000**

With powers of 10, what is the relationship between the exponent and the number of zeros? **Exponent equals number of zeros.**

$2^2 \times 2^2$	2^6	$(4 \times 10^1) + 7$	**47**
$2^3 \times 2^2$	2^5	$(7 \times 10^2) + (2 \times 10^1) + 9$	**729**
$2^1 \times 2^5$	2^4	$(8 \times 10^2) + (0 \times 10^1) + 1$	**801**
$3^4 \times 3^1$	3^2	5×10^6	**5,000,000**
$3^2 \times 3^4$	3^5	10×10^6	**10,000,000**
$3^1 \times 3^1$	3^6	$(9 + 1) \times (6 - 3)$	**30**
$10^1 \times 10^1$	10^4	$9 \times 3 + 1 + 2$	**30**
$10^3 \times 10^1$	10^6	$\frac{9}{3} \times 10 \times 1$	**30**
$10^3 \times 10^3$	10^2		

Why does $3^2 \times 3^3 = 3^5$? **$3^2 = 3 \times 3$; $3^3 = 3 \times 3 \times 3$. $(3 \times 3) \times (3 \times 3 \times 3) = 3 \times 3 \times 3 \times 3 \times 3 = 3^5$.**

Make Twenty game. Play the Make Twenty game from Lesson 15. Exponents are allowed during the game.

In conclusion. Ask: What is another name for 8 to the second power? [8 squared] What is another name for 8 to the third power? [8 cubed]

EXPLANATIONS CONTINUED:

The calculator is turned on by pressing the (AC) button.

Lesson 20: Multiplying and Dividing by Tens

OBJECTIVES:

1. To realize the decimal point indicates the ones place
2. To experience multiplying and dividing by 10 on a calculator

MATERIALS:

1. Worksheet 10, Multiplying and Dividing by Tens
2. Casio SL-450S calculator
3. *Math Card Games*, D16
4. Math journal

ACTIVITIES FOR TEACHING:

Warm-up. Give the child the worksheet. Tell her to do just the warm-up problems. Solutions are below and on the right.

$(8 \times 10^2) + (4 \times 10) =$ **840**
$(8 \times 10^2) \times (4 \times 10^2) =$ **320,000**
$8 + 10^2 \times 4 + 10^2 =$ **508**

Multiplying by 10. Give the child the calculator. Tell her to set the calculator to multiply by 10 by using the constant feature. Say: Enter 10 and press ⊗ ⊗. Then tell her to enter 2 and press = repeatedly. Ask: What happens? [The product is being multiplied by 10 over and over.]

Say: If you press = too many times, an *E*, meaning error, will appear. Clear the error by pressing the Ⓒ button.

Tell her to use the constant feature again by entering 10 and ⊗ ⊗, then enter 8 and press = repeatedly until the display says 80,000,000. Ask: What punctuation is used to separate the digits? [apostrophes and decimal point] What do the apostrophes group? [thousands and millions] Say: The decimal point tells where the ones place is; it is always placed right after the ones digit. In any number, the decimal point separates the whole part of the number from the part less than one.

Tell her to enter 45. Ask: Did you notice the decimal point after the 5? Is 5 the digit in the ones place? [yes]

Dividing by 10. Now tell the child to set her calculator to divide by 10. Do this entering 10 and pressing ÷ ÷.

Tell her to enter 8000 and to think about what will happen. Then press =, and read the display. [800] Tell her to repeat it two more times. [80, 8] Tell her to do it again. [0.8] Repeat two more times. [0.08 and 0.008]

Worksheet 10. Tell the child to complete the worksheet. The solutions are on the next page.

EXPLANATIONS:

```
     270 (0)
     × 4
    1080 (0)
     × 7
  4)7560 (0)
  7)1890 (0)
     270
```

On some calculators, an *e* indicates exponent.

Some calculators use commas and omit the decimal point for numbers greater than one.

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Lesson 36: Multiplying Tenths by a Whole Number

OBJECTIVES:

1. To review measuring in tenths
2. To introduce multiplying tenths

MATERIALS:

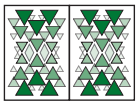
1. Warm-up Practice 1, found after the math journal in the child's worksheets
2. Five basic number cards to measure
3. Five Corners™ cards to measure
4. 4-in-1 ruler
5. Worksheet 25, Multiplying Tenths by a Whole Number

ACTIVITIES FOR TEACHING:

Warm-up. Give the child the warm-up practice sheet. Tell her to complete only the first multivide. Solutions are on the right.

Measuring the width of cards. Give the child the basic number cards, Corners™ cards, the 4-in-1 ruler, and the worksheet. Tell her to measure the width of one basic number card to the nearest tenth of a centimeter. [5.7 cm for the rounded-corner cards (or 5.4 cm for the sharp-corner cards)] See the left figure below.

5.7 cm



11.4 cm

Ask: How could you calculate the width of two cards? [multiply 5.7 by 2 (or 5.4 by 2)] Tell her to do the calculation. [11.4 cm for the rounded-corner cards (or 10.8 for the sharp-corner cards)] Then tell her to lay two cards side by side and measure them. See the right figure above. Ask: Did your measurements agree with your calculations?

Worksheet 25, Problem 1. Ask the child to read and complete the first problem, which is a continuation of the above activity. The solutions are below.

Number of cards	Width calculated	Width measured
1		**5.7 cm**
2	**11.4 cm**	**11.4 cm**
5	**28.5 cm**	**28.5 cm**
10	**57.0 cm**	
18	**102.6 cm**	
43	**245.1 cm**	
75	**427.5 cm**	
100	**570.0 cm**	

When she has finished, ask her to share her solution.

EXPLANATIONS:

Remind the child to use check numbers with each step as she proceeds through the multivide.

The divisors chosen may differ from those shown or be used in a different order.

The second multivide on the warm-up practice sheet will be completed in a future lesson.

```
                11  (2)
            × 63  (0)
                33
               660
               693  (0)
             × 32  (5)
             1 386
            20 790
            22 176  (0)
             × 36  (0)
           133 056
           665 280
           798 336  (0)
             × 18  (0)
         6 386 688
         7 983 360
63: 9)14 370 048  (0)
    7)1 596 672
32: 8)228 096  (0)
    4)28 512
36: 6)7 128  (0)
    6)1 188
18: 9)198  (0)
    2)22
      11
```

Here are the measurements for the sharp-corner cards.

Number of cards	Width calculated	Width measured
1		**5.4 cm**
2	**10.8 cm**	**10.8 cm**
5	**27.0 cm**	**27.0 cm**
10	**54.0 cm**	
18	**97.2 cm**	
43	**232.2 cm**	
75	**405.0 cm**	

The very old solid green card decks may measure slightly less.

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Name: _____

Date: _____

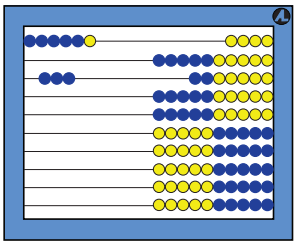
Warm-Up

Multiply the numbers given. Use check numbers to check your work if you like.

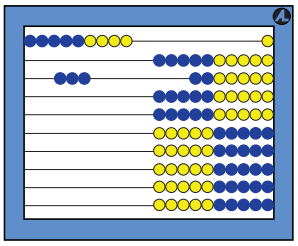
	0	.8	5	( )	
×	2	4		( )	
				( )	

		3	8	( )	
×	0	.4	9	( )	
				( )	

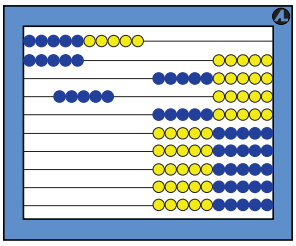
Write the equations shown on the abacuses. Each bead on the abacus represents 0.1.



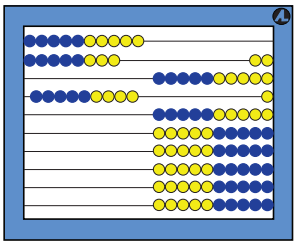
0.6 / 0.3 = _____



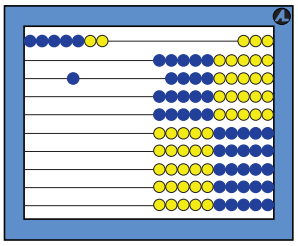
_____ = _____



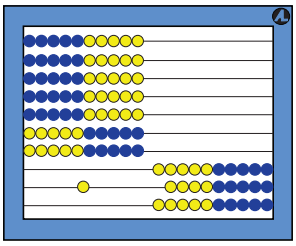
_____ = _____



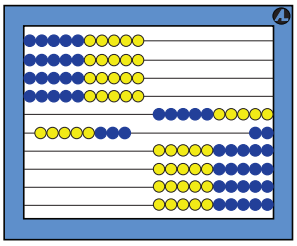
_____ = _____



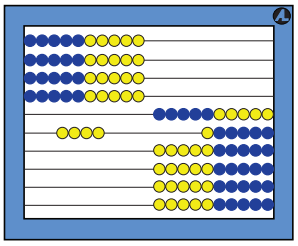
_____ = _____



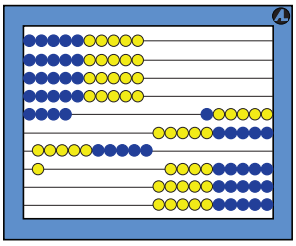
_____ = _____



_____ = _____



_____ = _____



_____ = _____

If each bead in the abacuses above suddenly explodes becoming ten times greater, what happens to your answers? _____

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Name: _____

Date: _____

1. For each figure, measure the length of the side of squares in centimeters. Then complete the table.

Figure 1.

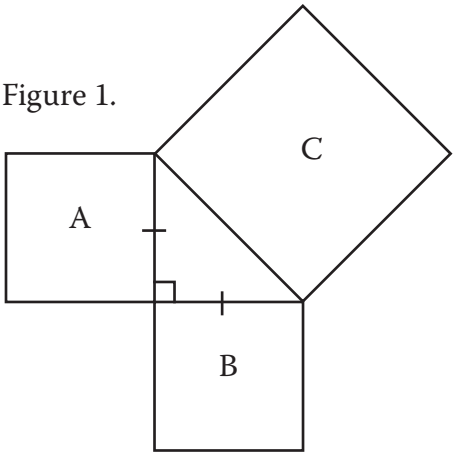

Figure 2.

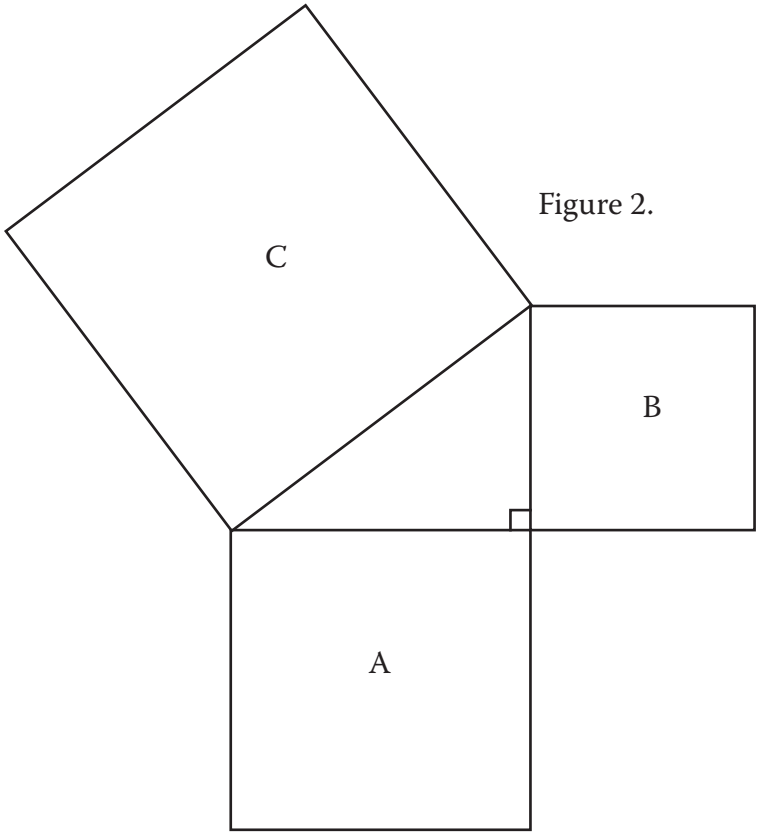

	Figure 1	Figure 2
Side of A		
Side of B		
Side of C	2.83 cm	
Area of A		
Area of B		
Area of C		

In each figure, how does the area of the two smaller squares compare to the area of the larger square?

_____

2. Measure the sides of squares A and B and calculate the side of C. Use millimeters for Figure 3 and hundredths of a centimeter for Figure 4. Fill in the table. Use a calculator to find square roots.

Figure 3.

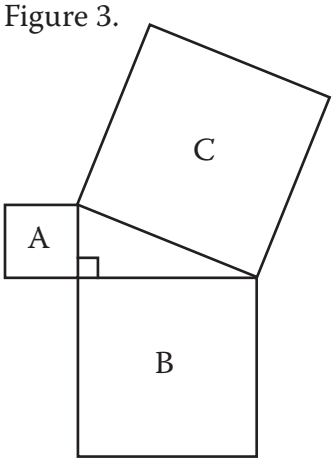

Figure 4.

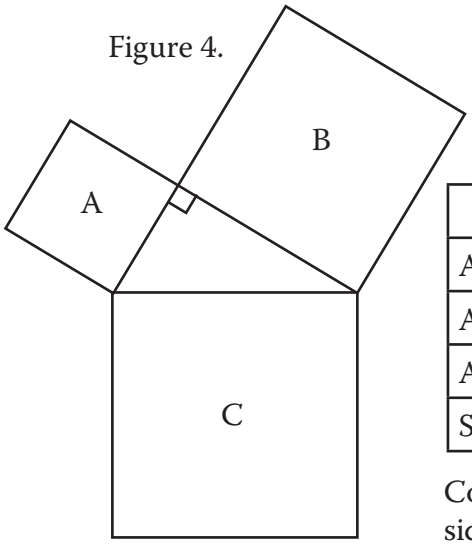

	Figure 3	Figure 4
Area of A		
Area of B		
Area of C		
Side of C		

Compare your calculations for side C by measuring the figures.

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Name: _____

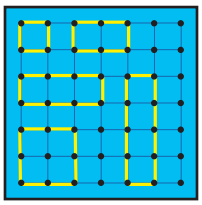
Date: _____

A square formed by four pegs on the geoboard is 1 unit of area.

Boundary points are pegs on the perimeter of the figure. A *boundary pair* is two boundary points.

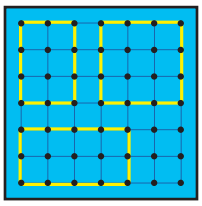
Fill in the table for each figure below.

Figures 1 to 5.



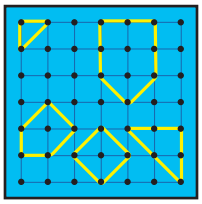
Area in Units	Number of Pegs	
	Boundary Pairs	Inside
1	2	

Figures 6 to 8.



Area in Units	Number of Pegs	
	Boundary Pairs	Inside

Figures 9 to 13.



Area in Units	Number of Pegs	
	Boundary Pairs – 1	Inside

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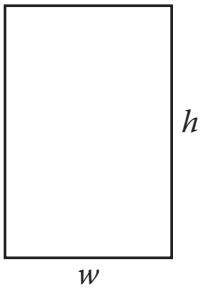
Name: _____

Date: _____

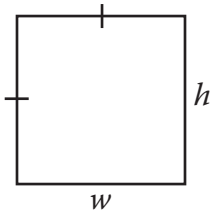
1. Are the formulas for finding the perimeter, P, and area, A, of a rectangle all correct? Write yes or no.

_____ $P = w + h + w + h$
_____ $P = 2w + 2h$
_____ $P = w \times h$
_____ $P = 2(w + h)$
_____ $A = 2(w \cdot h)$
_____ $A = w \times h$



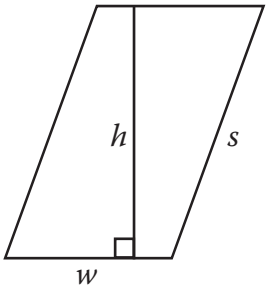
2. Are the formulas for finding the perimeter, P, and area, A, of a square all correct? Write yes or no.

_____ $P = w + h + w + h$
_____ $P = 2w + 2h$
_____ $P = 2(w + h)$
_____ $P = 4w$
_____ $A = 2 \times (w + h)$
_____ $A = w \cdot h$
_____ $A = w^2$
_____ $A = h^2$



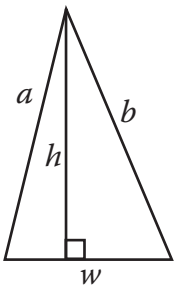
3. Are the formulas for finding the perimeter, P, and area, A, of a parallelogram all correct? Write yes or no.

_____ $P = 2w + 2h$
_____ $P = w \times s$
_____ $P = 2(w + s)$
_____ $A = 2(w \times h)$
_____ $A = ws$
_____ $A = wh$
_____ $A = w \cdot h$



4. Are the formulas for finding the perimeter, P, and area, A, of a triangle all correct? Write yes or no.

_____ $P = w + b + h$
_____ $P = 2w + 2h$
_____ $P = w + b + a$
_____ $A = w + h$
_____ $A = \frac{1}{2}(w \times h)$
_____ $A = \frac{1}{2} \times (w + h)$
_____ $A = \frac{1}{2}wh$
_____ $A = \frac{wh}{2}$



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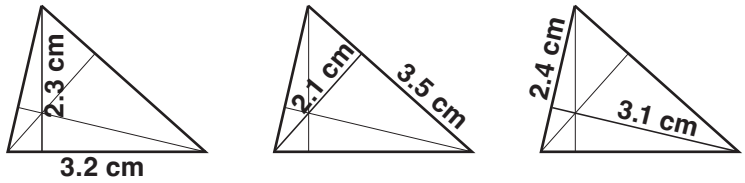
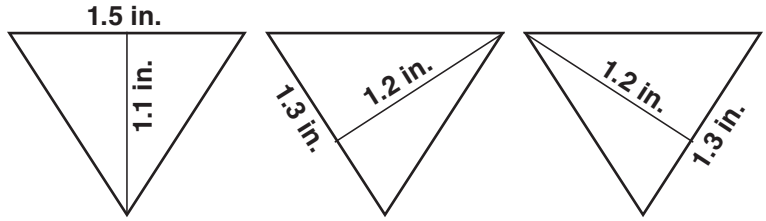
ACTIVITIES FOR TEACHING CONTINUED:

Worksheet 55, Problem 1. Tell the child to read the instructions for the first problem. Tell him the heights are drawn for him, but he needs to match the correct heights and widths. The solutions are below.



$A = \frac{1}{2}wh$	$A = \frac{1}{2}wh$	$A = \frac{1}{2}wh$
$A = \frac{1}{2} \times 3.2 \times 2.3$	$A = \frac{1}{2} \times 3.5 \times 2.1$	$A = \frac{1}{2} \times 2.4 \times 3.1$
$A = 3.7\ cm^2$	$A = 3.7\ cm^2$	$A = 3.7\ cm^2$

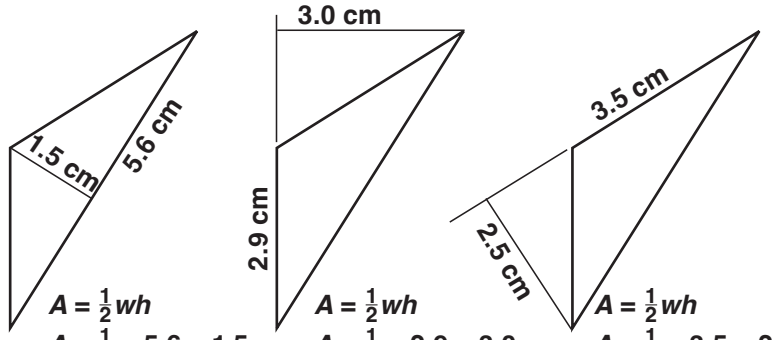
Problem 2. Tell him to complete the second problem on the worksheet. Tell him to use the triangle to draw the perpendicular line. The solutions are below.



$A = \frac{1}{2}wh$	$A = \frac{1}{2}wh$	$A = \frac{1}{2}wh$
$A = \frac{1}{2} \times 1.5 \times 1.1$	$A = \frac{1}{2} \times 1.3 \times 1.2$	$A = \frac{1}{2} \times 1.3 \times 1.2$
$A = 0.83\ in^2$	$A = 0.78\ in^2$	$A = 0.78\ in^2$

Ask: What kind of a triangle is this? [isosceles acute triangle] Why do you think the answers are less accurate compared to Problem 1? [Rounding and the tenths of an inch are larger than the tenths of a centimeter.]

Problem 3. Tell the child to complete the third problem on the worksheet. Tell him that some of the sides of obtuse triangles need to be extended, which is done for him. The solutions are below.



$A = \frac{1}{2}wh$	$A = \frac{1}{2}wh$	$A = \frac{1}{2}wh$
$A = \frac{1}{2} \times 5.6 \times 1.5$	$A = \frac{1}{2} \times 2.9 \times 3.0$	$A = \frac{1}{2} \times 3.5 \times 2.5$
$A = 4.20\ cm^2$	$A = 4.35\ cm^2$	$A = 4.38\ cm^2$

In conclusion. Ask: What do you call a perpendicular line from a side of a triangle to the opposite vertex? [height] How many heights are in a triangle? [three]

EXPLANATIONS CONTINUED:

Answers may vary slightly.

The calculated areas are not identical because the measurements are not exact. The more accurate the measurements, the closer the calculated areas will be.

If there is additional time following this lesson, play the Find the Products game, found in *Math Card Games* book, P33.

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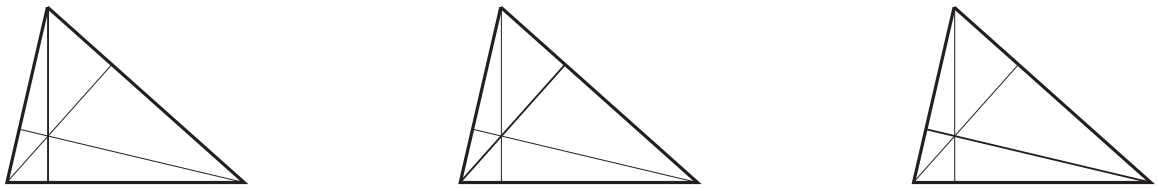
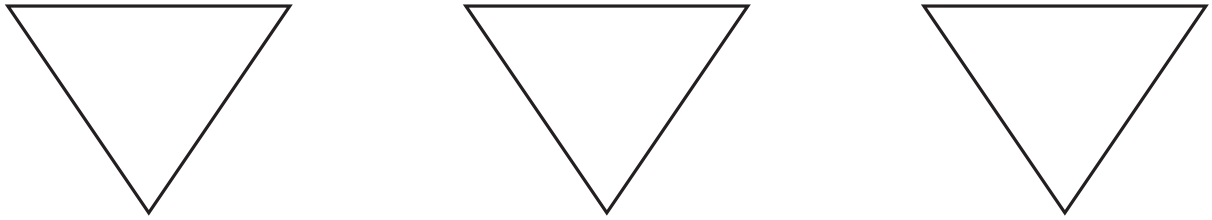
Name: _____

Date: _____

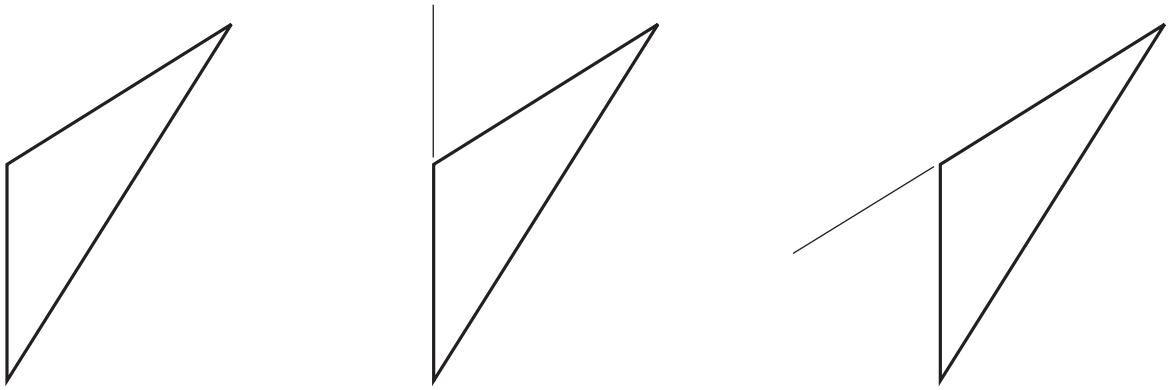
1. Find the area of the triangle below in three different ways. Measure to the nearest tenth of a centimeter.



2. Find the area of the triangle below in three different ways. Measure to the nearest tenth of an inch. Calculate your answer to the nearest hundredths.



3. Find the area of the triangle below in three different ways. Measure to the nearest tenth of a centimeter. Calculate your answer to the nearest hundredths.



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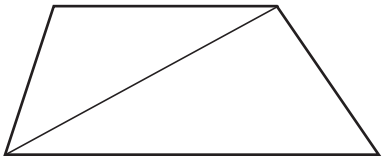
Name: _____

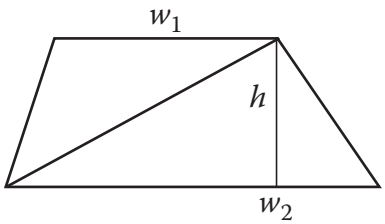
Date: _____

1. Find the area of the trapezoid by breaking it into two triangles as shown below. Use a tangram to draw the height for both triangles using the horizontal lines as the base.

A. Measure in centimeters.

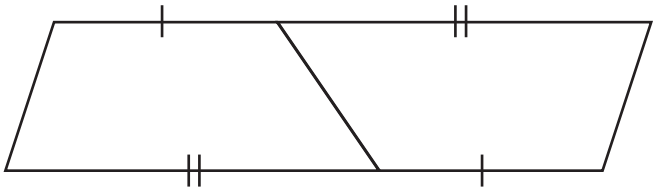


B. Write a formula for the area.

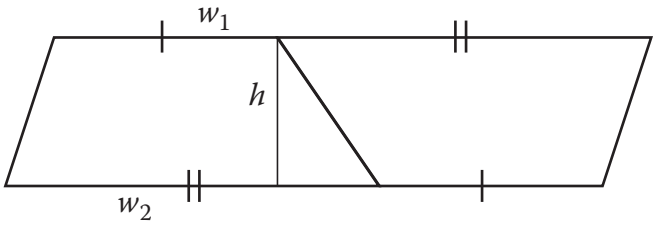


2. Find the area of the parallelogram. Then find the area of one trapezoid.

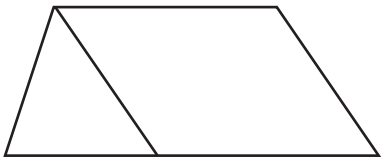
A. Measure in centimeters.



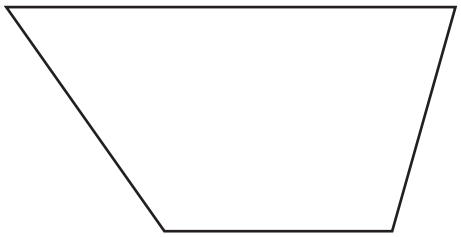
B. Write the formulas for the areas.



3. Find the area of the trapezoid in square centimeters by adding the areas of the parallelogram and triangle.



4. Find the area of the trapezoid in square centimeters using any method.



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Name: _____

Date: _____

INFORMATION: The definition of an inch is: 1 in. = 2.54 cm.

Conversions you may need: 1 km (kilometer) = 1000 m 1 mi = 5280 ft 1 yd = 36 in.

Use dimensional analysis to solve the problems. Do not round. You may use a calculator.

1. Find how many centimeters are in a foot.

   _____ → _____ → _____

   1 ft = 1 ft × $\frac{\_\_\_\_}{\text{ft}}$ × $\frac{\_\_\_\_}{\text{in.}}$ = _____ Does your answer agree with a ruler? _____

2. Find how many centimeters are in a yard.

   _____ → ft → _____ → _____

   1 yd = _____ × _____ × _____ × _____ = _____

   Does your answer agree with a yardstick? _____

3. Find how many kilometers are in a mile.

   _____ → ft → _____ → cm → m → km

   1 mi = _____ × _____ × _____ × _____ × _____ × _____ = _____

   Which is longer, a kilometer or a mile? _____

   Round your answer to one decimal place. _____

4. How many miles are in a kilometer? Use your unrounded answer from Problem 3. Round to two decimal places.

   _____ → _____

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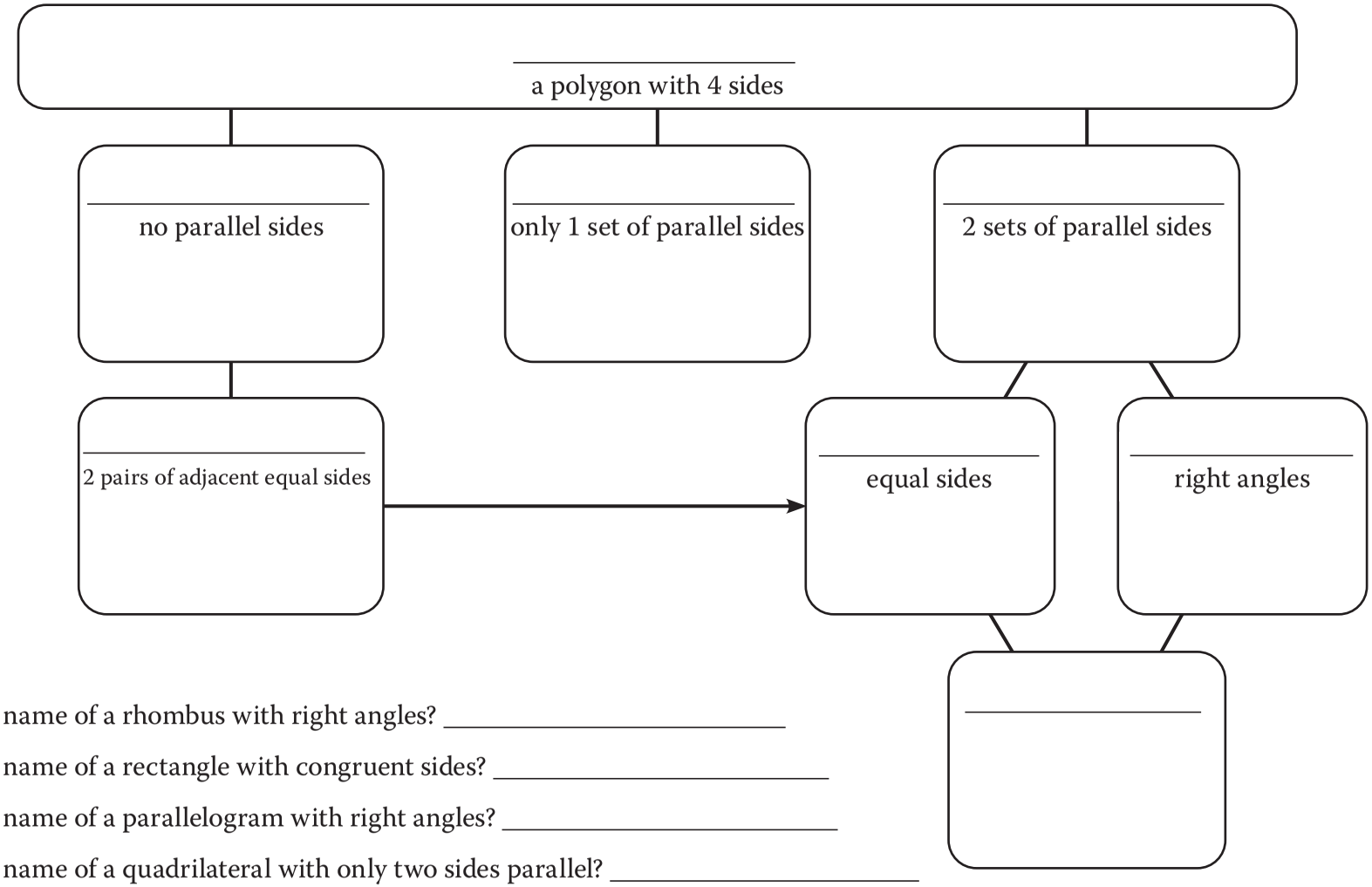
Name: _____ Date: _____

Write the following terms in the chart: no name, trapezoid, parallelogram, rhombus, kite, quadrilateral, square, and rectangle. Use your drawing tools to draw a sample figure in each of the six boxes. Then answer the questions below.



What is the name of a rhombus with right angles? _____

What is the name of a rectangle with congruent sides? _____

What is the name of a parallelogram with right angles? _____

What is the name of a quadrilateral with only two sides parallel? _____

What three quadrilaterals can be made with these lines: ═══ ═══

_____

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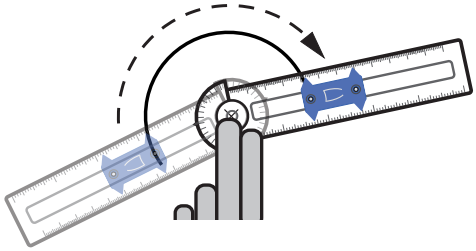
SLIDE N' MEASURE COMPASS

NEW effective August 2025; used in RightStart Mathematics Levels E, F, G, and H

** measures in inches and centimeters **

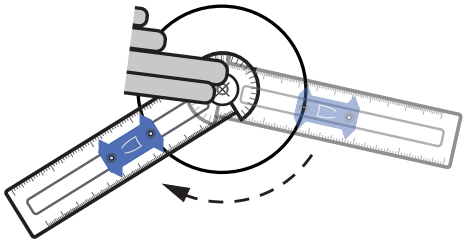
The Slide N' Measure Compass will draw circles with radii from 1.3 to 12 cm and 1/2 inch to 4-11/16 inches.

Align the center of the circle part of the compass with the center mark of your circle and hold it with your non-writing hand. Place the radius arm to the left. See the first figure on the right.



Position the slide to point to the desired radius. Put your pencil in the hole for that radius, then draw the circle in a clockwise direction. If you are left-handed, start the radius arm on the right side and draw the circle counterclockwise.

When your circle is almost complete, raise the heel of your hand, and continue drawing the circle until you have completed it. See the second figure.



To make more accurate circles, keep your pencil perpendicular to the paper. Also, keep light pressure against the outside of the hole while drawing.

A demonstration on using the Slide N' Measure Compass can be found at RightStartMath.com/geometry.

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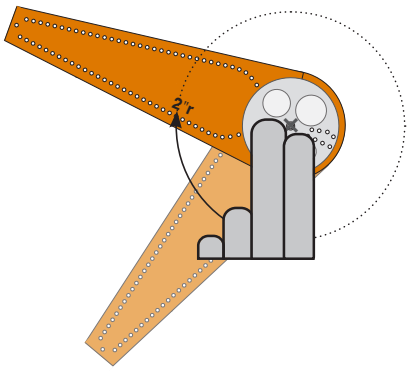
SAFE-T COMPASS®

used prior to September 2025 in Levels E and F

** measures in inches **

Start by aligning the center of the white rotator over the center of the circle being drawn and hold it with your non-writing hand. Find the hole marked with the desired radius measurement and insert the pencil.



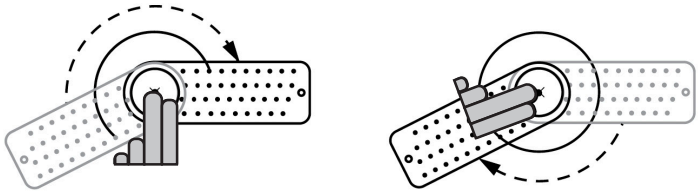
Keep the white rotator still and move the radius arm in an arc to draw the circle.

mmARC COMPASS

used prior to August 2025 in Levels G and H

** measures in millimeters **

Align the center of the movable part of the compass, the rotator, with the center of your circle and hold it with your non-writing hand. Place the radius arm to the left.



Put the pencil in the hole for the desired radius, then draw the circle in a clockwise direction. When the circle is almost complete, raise the heel of the hand. See the second figure above.

If you are left-handed, start on the right side and draw the circle counterclockwise.

To make more accurate circles, keep your pencil perpendicular to the paper. Also, press against the outside of the hole while drawing.

A demonstration on using this compass can be found at RightStartMath.com/geometry.