

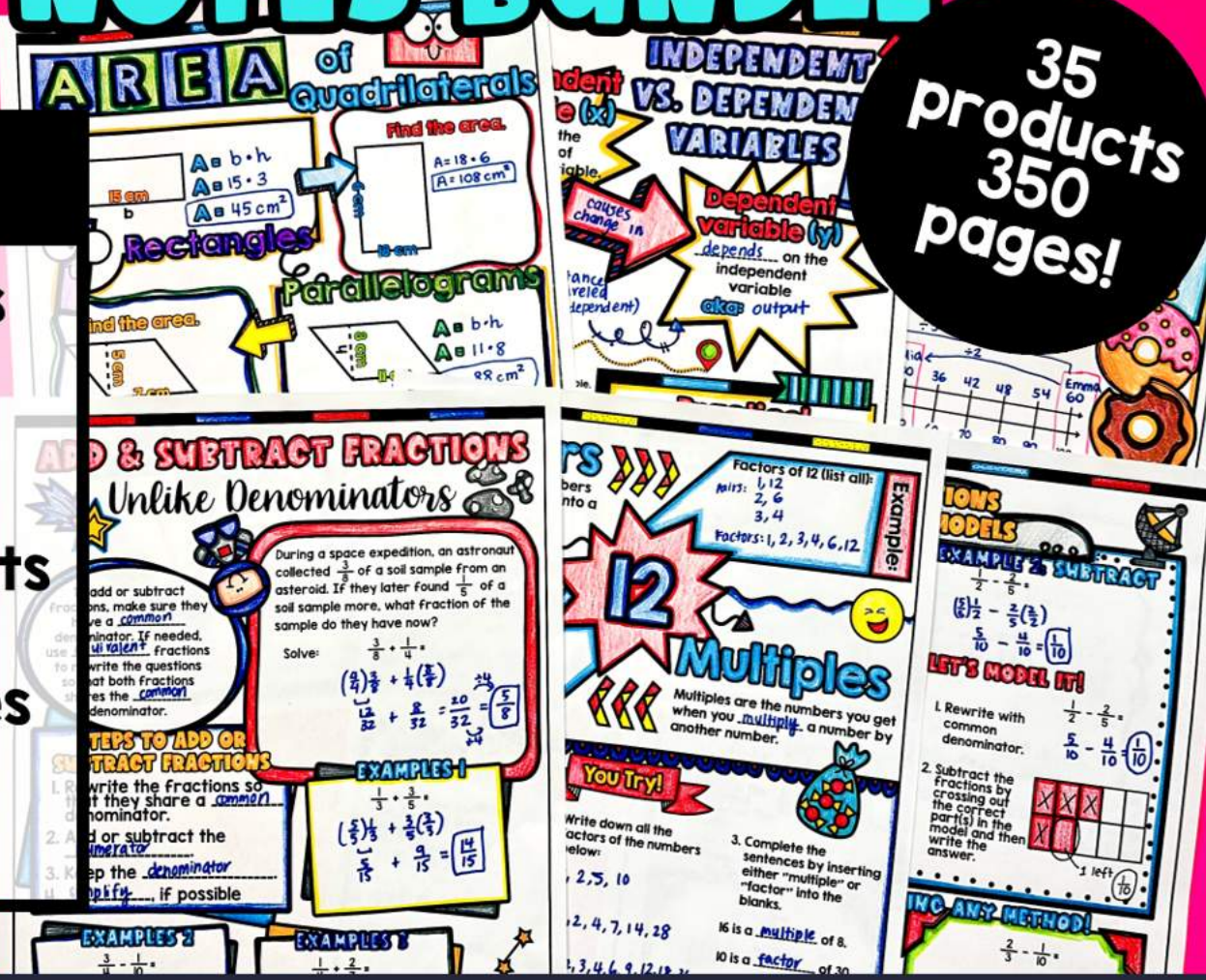
# 6TH GRADE CCSS - UNIT BUNDLE

## 6TH GRADE CCSS GUIDED NOTES BUNDLE

### Guided Notes Units

1. Place Value & Decimals
2. Fractions
3. Rational Numbers
4. Ratios, Rates & Percents
5. Expressions
6. Equations & Inequalities
7. Geometry
8. Data & Statistics

35  
products  
350  
pages!



# Every set of guided notes includes sketch notes, practice, and real-life applications.

RATIOS

A ratio is a comparison of two quantities.

## WRITING RATIOS

Write Form:  $\frac{4}{6}$

## RATES

A rate is a special type of ratio that compares two quantities of different units. It is an example of rate. It measures two quantities of different units over time.

Guided Notes  
2 pages

Unit rate is ratio between different units. It is a single unit measurement.

## PRACTICE

- An airplane flies 856 miles in 2 hours. How many miles did the airplane fly per hour?  $428 \text{ miles per hour}$
- At this rate, how many miles can the airplane fly in 12 hours?  $5136 \text{ miles}$

## COLOR BY CODE



## SOLVE THE PROBLEMS TO COLOR THE

- Write the ratio of lollipops to ice cream cones as a fraction in the simplest form.  $\frac{2}{3}$
- A car travels 270 miles in 6 hours. If it continues at the same speed, how far, in miles, will it travel in 4 hours?  $270 \text{ miles} = 45 \text{ miles per hour}$   
 $45 \cdot 9 = 405$
- A dozen donuts costs \$6.00. What is the cost per donut?  $\$0.50$

## RATIOS

Fill in the r...

Books Read	Weeks
2	1
4	2
12	6
30	15

Practice  
2 pages

## REAL-LIFE APPLICATION

Real-Life Uses  
1 page

In your own words, explain ratios, rates, or unit rates be used in real life.

Cooking and baking → ratios are crucial for scaling recipes

Shopping: finding the unit price to determine the better deal

Construction: ratios are used to estimate the amount of materials needed for building spaces of different sizes.

calculate the unit rates, we ounce, making it a better

Explain why...

student responses may differ.

# Variety of practice activities incorporated!

Line up the decimal points, like buttons on a coat!

$$7.5 + 15.9 = 23.4$$

Reference.

b)  $0.415 + 3.8 =$       c)  $1.67 + 2.03 =$

$$\begin{array}{r} 0.415 \\ + 3.800 \\ \hline 4.215 \end{array}$$

$$\begin{array}{r} 1.67 \\ + 2.03 \\ \hline 3.70 \end{array}$$

4.215      3.7

**SUBTRACT**

## PRACTICE

### Wardrobe Wonders

Wardrobe Wonders. Please help them calculate the total cost

JAY'S PURCHASE

$$\begin{array}{r} 47.39 \\ + 58.95 \\ \hline 106.34 \end{array}$$

\$106.34

LINDA'S PURCHASE

$$\begin{array}{r} 8.59 \\ + 78.74 \\ \hline 87.33 \end{array}$$

\$87.33

5. FIND THE COST OF THE PURCHASE.

$$\begin{array}{r} 34.29 \end{array}$$

LAURA'S PURCHASE

$$\begin{array}{r} 18.50 \end{array}$$

RE ABOVE. THEN, FILL IN ANY REMAINING SPACES WITH YOUR DESIRED COLORS.

$$\begin{array}{r} 5.08 \\ + 18.5 \\ \hline 23.58 \end{array}$$

58.4 =

3.  $0.9 + 4.9 =$

$$\begin{array}{r} 0.9 \\ + 4.9 \\ \hline 5.8 \end{array}$$

5.8

4.  $8.4 + 31.7 =$

$$\begin{array}{r} 8.4 \\ + 31.7 \\ \hline 40.1 \end{array}$$

40.1

7.  $6.09 - 2.1 =$

$$\begin{array}{r} 6.09 \\ - 2.10 \\ \hline 3.99 \end{array}$$

3.99

8.  $13.5 - 2.8 =$

$$\begin{array}{r} 13.5 \\ - 2.8 \\ \hline 10.7 \end{array}$$

10.7

# MAZE:

Solve the problems below to escape the maze.

START:  $76.2 \cdot 4.7 =$

$$\begin{array}{r} 76.2 \\ + 4.7 \\ \hline 80.9 \end{array}$$

79.9

$38.1 \cdot 2.38 =$

$$\begin{array}{r} 38.10 \\ + 2.38 \\ \hline 40.48 \end{array}$$

12.28

$18.5 - 12.05 =$

$$\begin{array}{r} 18.50 \\ - 12.05 \\ \hline 6.45 \end{array}$$

80.9

$37.68 - 27.5 =$

$$\begin{array}{r} 37.68 \\ - 27.50 \\ \hline 10.18 \end{array}$$

10.18

$37.68 - 27.50 =$

$$\begin{array}{r} 37.68 \\ - 27.50 \\ \hline 10.18 \end{array}$$

7.81

$0.45 \cdot 7.96 =$

$$\begin{array}{r} 0.45 \\ \times 7.96 \\ \hline 3.576 \end{array}$$

19.42

6.45

6.45

40.48

# PRACTICE

## Wardrobe Wonders



Wardrobe Wonders. Please help them calculate the total cost

JAY'S PURCHASE

2. FIND THE COST OF THE PURCHASE.

$$\begin{array}{r} 11 \\ + 39 \\ \hline 50 \end{array}$$

LINDA'S PURCHASE

9. FIND THE COST OF THE PURCHASE.

$$\begin{array}{r} 8.59 \\ + 2.14 \\ \hline 10.73 \end{array}$$

Practice 3 pages

RY CODE

20.79

11.35

5.8

10.7

25.45

50.7

52.4

1.465

40.1

23.58

3.99

Guided Notes 1 page

# ADDING & SUBTRACTING DECIMALS

Line up the decimal points, like buttons

$$\begin{array}{r} 7.5 \\ + 15.9 \\ \hline 23.4 \end{array}$$

Line up the decimal points vertically. Fill in 0s if needed

Step 2: Add & subtract as if they were whole numbers.

Step 3: Bring down the decimal point to find the sum or difference.

## ADD

a)  $13.7 + 0.41 =$

$$\begin{array}{r} 13.70 \\ + 0.41 \\ \hline 14.11 \end{array}$$

b)  $0.415 + 3.8 =$

$$\begin{array}{r} 0.415 \\ + 3.800 \\ \hline 4.215 \end{array}$$

c)  $1.65 + 0.185 =$

$$\begin{array}{r} 1.650 \\ + 0.185 \\ \hline 1.835 \end{array}$$

# REAL LIFE APPLICATION

Imagine you're at the grocery store, and you've picked up several items to purchase. Each item has a price listed in decimal form. Your goal is to calculate the total cost of your groceries before heading to the checkout counter to make sure you are not overspending. Here's your shopping list:

1. Bag of apples: \$4.49
2. Bottle of orange juice: \$3.49
3. Loaf of bread: \$3.79
4. Cereal box: \$4.25
5. Fresh salmon: \$12.99 per pound

You plan to buy 2 pounds of salmon, and one of everything else. To calculate the total cost, you have to add the prices of the individual items. Knowing how to add and subtract decimals is essential in grocery shopping as it allows you to accurately calculate the total cost of your items, ensuring you stay within your budget and avoid overspending.

Real-Life Uses 1 page

$$\begin{array}{r} + 12.99 \\ 42.00 \\ \hline \end{array}$$

\$42.00

WITH YOUR DESIRED COLORS.

4.  $8.4 + 31.7 =$

$$\begin{array}{r} 8.4 \\ + 31.7 \\ \hline 40.1 \end{array}$$

8.  $13.5 - 2.8 =$

$$\begin{array}{r} 13.5 \\ - 2.8 \\ \hline 10.7 \end{array}$$

1.65 + 0.185 =

$$\begin{array}{r} 1.650 \\ + 0.185 \\ \hline 1.835 \end{array}$$

465

# Colorful and visual notes!

**DECIMAL PLACE VALUE**

378.254

Hundreds Tens Ones decimal point tenths hundredths thousandths

Whole numbers Fractional part

The place value of a digit increase by **TEN** times as it moves **LEFT** one place on the place value chart.

**WORDS**

Write out each decimal in words.

- 56.4 Fifty-six and four tenths
- 33.15 Thirty-three and fifteen hundredths.
- 2.62 Two and sixty-two hundredths.
- 5.089 Five and eighty-nine thousandths.

**PRACTICE**

Identify Place Value

Identify the place value of the underlined digits.

- 690.6 Four tens
- 132.25 Five hundredths
- 7.54 Seven tenths

420.01

40.207

15.93

7.6

12.1

7.6

12.1

7.6

12.1

7.6

40.207

7.6

15.61

7.6

15.61

7.6

40.207

7.6

15.61

7.6

number is 7.54 or 7.48?

4. Which number is larger?

Practice  
1 page

# DECIMAL PLACE VALUE

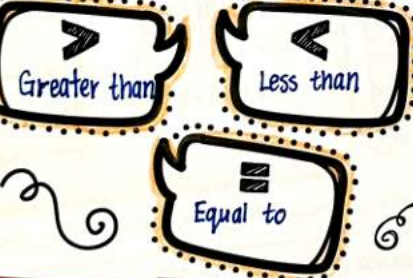
378.254

COLOR BY CODE

## STANDARD VS. EXPANDED

7.325

## COMPARING DECIMALS



- STEP**
1. Line up the dec
  2. Compare the starting fro
  3. If the digit same, com in the nex the right digits w value ur that a

**PRACTICE**

- Compare each pair of decimals using  $>$ ,  $<$ , or  $=$ .
- |   |   |
|---|---|
| 1. 15.22 <input type="checkbox"/> 15.65 | 5. 30.54 <input type="checkbox"/> 34.05   |
| 2. 34.04 <input type="checkbox"/> 34.40 | 6. 154.7 <input type="checkbox"/> 154.700 |
| 3. 21.70 <input type="checkbox"/> 21.70 | 7. 8.93 <input type="checkbox"/> 8.051    |
| 4. 39.8 <input type="checkbox"/> 39.76  | 8. 67.68 <input type="checkbox"/> 67.7    |

**CHECKING IN**

## REAL-LIFE APPLICATION

Real-Life Uses  
1 page

Imagine you... and you see... costs \$39... can see t... because... means you... even thoug...

a new video game... 7.59 and the othe... place value, you... a bit cheaper... smaller. This... the first option...

Rounding also helps. If you needed a quick estimate, rounding these to the nearest dollar would show that the both options is about \$40. These skills help you smart choices when shopping and managing money.

Guided Notes  
3 pages

# Sketch notes infused with creativity & real life uses!

NAME: **(KEY?)**

## WRITING EXPRESSIONS

**"n"** A variable (letter) can be used to represent an unknown number.

**EXAMPLES**

Write an expression to represent the phrase.

- Nine decreased by five.  $9 - 5$
- Three divided by a number.  $3 \div n$
- Seven plus a number.  $7 + n$

**SPECIAL HINTS:** These 4 are special words that uses a different phrase.

**SUM**      **DIFFERENCE**

**PRODUCT**      **QUOTIENT**

Hint #1: Use the phrase: "The \_\_\_\_\_ of \_\_\_\_\_ and \_\_\_\_\_"

**ADDITION (+)**  
plus, sum, more than, increased by, combined with, total of, gain, exceeds by, altogether

**SUBTRACTION (-)**  
subtracted, minus, difference, less than, decreased by, reduced by, take away

**MULTIPLICATION (x)**  
times, multiply, product, twice/double (x2), triple (x3)

**DIVISION (÷)**  
divide, quotient, distribute equally, split evenly, half (÷ 2)

**YOU TRY**  
8 minus a number.  $8 - r$

### REAL LIFE APPLICATION

There are many real-life applications of writing algebraic expressions, but did you know that it can help you run a small business like a lemonade stand?

Understanding basic algebraic expressions will help you tighten your financials. Algebraic expressions are part of an equation that can be used to give a value or amount, such as profits or costs. Being able to calculate expenses and potential profits will help you determine if a lemonade stand is a good business opportunity.

For example, let's say you need to purchase coolers, cups, and lemons for your stand. The cost of a cooler is \$50, the cost of cups is \$5 per pack, and the cost of lemons is \$7 per bag. You can represent each of these as part of an expression:  $50 + 5c + 7l$ , where  $c$  represents the number of cups and  $l$  for lemons.

### TRANSLATE BETWEEN VERBAL PHRASE AND EXPRESSIONS

Translate the following verbal phrases into expressions.

16 and a number:  $16 + p$

3 times a number:  $3(6n)$

5 less than a number:  $5 - k$

Half of twelve and a number:  $(12 - n) \div 2$  or  $1/2 (12 - n)$

4 divided by a number minus two:  $(4 \div n) - 2$

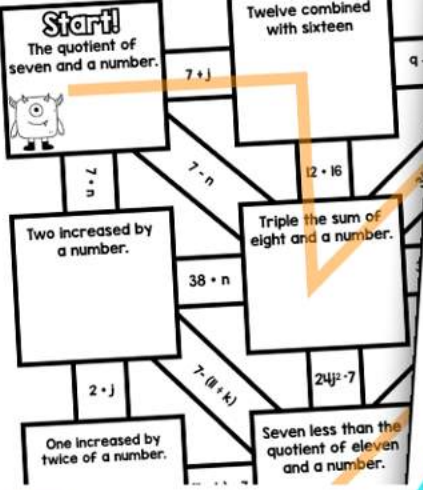
**BACKWARD PHRASES:**

**"SUBTRACTED FROM"**

Example: \_\_\_\_\_

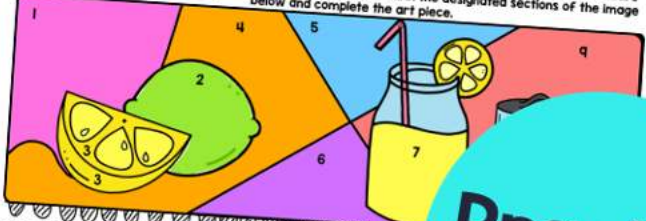
**KEY**  
**The Maze**

Find the expression that matches the verbal phrases



**COLOR BY NUMBER PRACTICE**

**KEY**  
Match each verbal phrase to the right algebraic/numerical expression. Once you have solved the problems, use the answers below to unlock the colors to fill in the designated sections of the image and complete the art piece.



- The difference of five and a number.  $5 - x$  orange
- Seven less than the product of nine and a number.  $7 - (9n)$  yellow
- The quotient of six and a number.  $6 \div n$  pink
- The sum of sixteen and two cubed.  $16 + 2^3$  green
- Seven squared decreased by a number.  $7^2 - n$  blue

**KEY**  
**TRANSLATE BETWEEN VERBAL PHRASE AND EXPRESSIONS**

**PRACTICE**  
Translate the following verbal phrases into expressions.

Sum of sixteen and a number:  $16 + p$

The product of six and a number:  $3(6n)$

Twice a number:  $5 - k$

The difference of twelve and a number:  $(12 - n) \div 2$  or  $1/2 (12 - n)$

The difference of four and a number minus two:  $(4 \div n) - 2$

**Practice 3 pages**

**Guided Notes 2 pages**

**KEY**  
**EXPRESSIONS EXPONENTS**

**WORDS THAT USE MULTIPLICATION OR EXPONENTS**

- TWICE/DOUBLE:** multiply by 2  $2n$
- SQUARE:** raised to the power of 2  $n^2$
- TRIPLE:** multiply by 3  $3n$
- CUBE:** raised to the power of 3  $n^3$

**REMEMBER**  
**TWO CUBED**  
 $= 2^3$   
 $= 2 \times 2 \times 2$   
 $= 8$

**PUTTING IT ALL TOGETHER**  
Translate the following expressions into verbal phrases. Student responses below are sample.

- $8 + k$  Eight increased by k.
- $(30 - j) - 4$  Four less than thirty and a number.
- $2(5 - m)$  Twice the difference of five and a number.
- $3^2 - a$  Three squared minus a number.

**WRITING EXPRESSIONS**

**"n"** A variable (letter) can be used to represent an unknown number.

**EXAMPLES**

- Nine decreased by five:  $9 - 5$
- Three divided by a number:  $3 \div n$
- Seven plus a number:  $7 + n$

**SPECIAL HINTS:** These 4 are special words that use a different phrase.

- SUM** DIFFERENCE
- PRODUCT** QUOTIENT
- Hint at Use the phrase:** "The \_\_\_\_\_ of \_\_\_\_\_ and \_\_\_\_\_."

**TRY IT!**

- 8 minus a number:  $8 - r$
- 4 combined with a number:  $4 + k$
- The sum of 9 and 7:  $9 + 7$
- Three times a number:  $3n$
- Five less than a number:  $n - 5$
- Twice a number:  $2n$
- A number plus 10:  $n + 10$
- A number divided by 3:  $n \div 3$
- A number multiplied by 4:  $4n$
- A number squared:  $n^2$
- A number cubed:  $n^3$
- A number to the power of 5:  $n^5$
- A number to the power of 10:  $n^{10}$

**REAL LIFE APPLICATION**

Real-life applications of writing algebraic expressions, but did you know you can run a small business like a lemonade stand?

Algebraic expressions are part of your financials. They help you determine if a business is profitable. You can use algebraic expressions to determine the cost of your lemonade stand. For example, if you have 5p for the cost of lemons and add 10c for the cost of sugar, the total cost for your lemonade is  $5p + 10c$ .

As the price of lemons changes, you can easily adjust your expression. As the price of sugar becomes more popular, you may be able to increase the price of your lemonade stand to make more profit. Using these numbers, you can determine if your lemonade stand is profitable, and decide what you need to do to increase your profits.

Use algebraic expressions in real life? Feel free to use the examples or come up with your own.

Examples may vary. Sample below:

**Real-Life Uses 1 page**



# Preview Sample: Area of Polygons



### MAZE:

Find the area. Solve the problems below to complete the maze.

**START:** Find the area.  
 $13$   
 $65 \text{ unit}^2$

Find the area.  
 $14$   
 $54 \text{ unit}^2$

Find the area.  
 $21$   
 $212 \text{ unit}^2$

Find the area.  
 $14$   
 $168 \text{ unit}^2$

Find the area.  
 $21$   
 $315 \text{ unit}^2$

Find the area.  
 $12$   
 $172 \text{ unit}^2$

Find the area.  
 $18$   
 $216 \text{ unit}^2$

Find the area.  
 $18$   
 $305 \text{ unit}^2$

Find the area.  
 $12$   
 $323 \text{ unit}^2$

## AREA of Quadrilaterals

### Rectangles

Find the area.  
 $h = 3 \text{ cm}$   
 $b = 15 \text{ cm}$   
 $A = b \cdot h$   
 $A = 15 \cdot 3$   
 $A = 45 \text{ cm}^2$

### Parallelograms

Find the area.  
 $h = 6 \text{ cm}$   
 $b = 18 \text{ cm}$   
 $A = b \cdot h$   
 $A = 18 \cdot 6$   
 $A = 108 \text{ cm}^2$

Find the area.  
 $h = 5 \text{ cm}$   
 $b = 7 \text{ cm}$   
 $A = b \cdot h$   
 $A = 7 \cdot 5$   
 $A = 35 \text{ cm}^2$

Find the area.  
 $h = 8 \text{ cm}$   
 $b = 11 \text{ cm}$   
 $A = b \cdot h$   
 $A = 11 \cdot 8$   
 $A = 88 \text{ cm}^2$

### Trapezoids

Find the area.  
 $b_1 = 8 \text{ cm}$   
 $b_2 = 12 \text{ cm}$   
 $h = 5 \text{ cm}$   
 $A = \frac{(b_1 + b_2) \cdot h}{2}$   
 $A = \frac{(8 + 12) \cdot 5}{2}$   
 $A = 50 \text{ cm}^2$

### PRACTICE

2. Find the area.  
 $12 \text{ m}$   
 $16 \text{ m}$   
 $A = \frac{(12+16)}{2} \cdot 7$   
 $A = \frac{(28)}{2} \cdot 7$   
 $A = 98 \text{ m}^2$

3. Find the area.  
 $15 \text{ m}$   
 $15 \text{ m}$   
 $A = 15 \cdot 15$   
 $A = 225 \text{ m}^2$

6. Find the area.  
 $11$   
 $\cdot 10$

## PRACTICE

1. Find the area.

$A = 13 \cdot 5$   
 $A = 65 \text{ ft}^2$

Good luck!

2. Find the area.

$A = \frac{(12+16)}{2} \cdot 7$   
 $A = \frac{(28)}{2} \cdot 7$   
 $A = 98 \text{ m}^2$

3. Find the area.

$A = 15 \cdot 15$   
 $A = 225 \text{ m}^2$

4. Find the area.

$A = 23 \cdot 14$   
 $A = 322 \text{ in}^2$

5. Find the area.

$A =$

START: Find the area.

65 unit<sup>2</sup>

Find the area.

168 unit<sup>2</sup>

Other shapes shown: 54 unit<sup>2</sup>, 46 unit<sup>2</sup>, 212 unit<sup>2</sup>, 305 unit<sup>2</sup>, 65 unit<sup>2</sup>.

Practice  
3 pages

code

442 unit<sup>2</sup>, 228 unit<sup>2</sup>, 408 unit<sup>2</sup>, 50 unit<sup>2</sup>, 361 unit<sup>2</sup>, 260 unit<sup>2</sup>, 224 unit<sup>2</sup>, 75 unit<sup>2</sup>, 187 unit<sup>2</sup>, 780 unit<sup>2</sup>.

2. Find the area.

24

3. Find the area.

12

16

4. Find the area.

15

## AREA of Quadrilaterals

### Rectangles

Find the area.

$A = b \cdot h$   
 $A = 15 \cdot 3$   
 $A = 45 \text{ cm}^2$

Find the area.

$A = 18 \cdot 6$   
 $A = 108 \text{ cm}^2$

### Trapezoids

Find the area.

$A = 7 \cdot 5$   
 $A = 35 \text{ cm}^2$

Find the area.

$A = b \cdot h$   
 $A = 11 \cdot 8$   
 $A = 88 \text{ cm}^2$

Guided  
Notes  
2 pages

## Real Life Application

A field of construction, calculating area is fundamental. In a construction project, whether it's building a house or a large commercial building, every inch of the structure needs to be accounted for. Contractors and architects rely on area calculations extensively to determine the amount of materials needed, such as tiles, wood, or other flooring materials. When planning flooring, understanding accurate area calculations help estimate the cost of the project. Roofing projects also heavily rely on area calculations to determine the amount of shingles or roofing material is purchased. Accurate area measurements are essential for determining the amount of concrete needed for foundations or for estimating precise cost estimations and minimizing waste.

Area calculations in construction are essential. Architects and designers use area measurements to plan layouts and ensure rooms are of appropriate size and proportions. From the dimensions of individual rooms to calculating the total floor area of a building, area measurements guide the entire design process.

Application of Percent

Real-  
Life Uses  
1 page

# Teachers say that it's their lifesaver.



**"Great resource and a different way to take notes. Students were engaged and used their notes to help them with solving problems later."**

**- Heather P.**



**"Loved it! Used it for students' interactive notebooks"**

**· Desiree L.**



**"I used this resource with students who typically struggle to remain engaged in mathematics. They remained very engaged and didn't hesitate to fix mistakes and complete their work. Great resource!"**

**- Carissa S.**



# 6TH GRADE CCSS FULL YEAR BUNDLE

## 6TH GRADE CCSS GUIDED NOTES BUNDLE

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FULL-YEAR BUNDLE

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