

## **8TH GRADE SUMMER WORK AND SUPPLY LIST**

READING

MATH

SUPPLIES

## 8th Grade Summer Reading 2022



This summer, our 8th grade Language Arts classes will be reading *The Princess Bride* by William Goldman. This book will help us dive right into our first unit- Narrative writing. This assignment will count as the students' first quiz grade. Quizzes are worth 30% of their overall grade. There are two parts to the summer reading:

<u>Part 1</u>: As students read, they will annotate the entire book. Students can write on the pages of their novel or place sticky notes on the pages with their ideas.

#### The annotations will be over the following:

- 1. Character Descriptions: Pay attention to character actions, dialogue, inner thoughts, and how other characters see them.
- 2. Unusual or Out-of-Place Character Actions and/ or Reactions: Pay attention to how characters act, and then notice when the character acts and/ or reacts differently than they normally would.
- 3. Pressures Exerted on Characters: Pay attention to internal and external pressures exerted on characters. Look at how characters are pressured to think or act.
- 4. Fantasy Genre Tropes: Pay attention to what features most fantasy writers include in their novels or short stories.
- 5. Setting: Pay attention to the time, place, and atmosphere/ mood of a place.
- 6. Diction: Pay attention to strong word-choice used by the author. Look at how the author describes people, places, events, objects, and/ or ideas.

**Example:** This is an example from a different novel and may not exactly match your requirements. However, this example can help you identify and understand the requirements of the given assignment.



<u>Part 2</u>: Choose a person, idea, symbol, or event from *The Princess Bride*, and draw a large shape that represents it (i.e., a spider's web representing Charlotte from Charlotte's Web). Then, fill the shape with words, phrases, and quotes from the text that describe that character. Underneath your drawing, choose three words/phrases and explain why they represent the novel.

**Example:** This is an example from a different unit and may not exactly match your requirements. However, this example can help you identify and understand the requirements of the given assignment.



#### Annotation Rubric:

1	2	3	4
Student made little to no effort to annotate the text.	Text has been somewhat annotated with a variety of comments.	Text has been reasonably well annotated with questions, observations, and connections to the text.	Text has been thoroughly annotated with thought-provoking questions, observations, and connections to the text.
N/a	Few words and concepts are marked; few interesting and surprising parts are noted.	Some challenging words and concepts are marked; a few interesting and surprising parts are noted.	Challenging words and concepts are marked; interesting and surprising parts are noted.
There is no understanding of the text demonstrated by the student markings.	Few and inconsistent markings throughout the text. Markings show comprehension, but NOT analysis.	Comments show an understanding of the text, but at a basic, surface level.	Comments show thoughtfulness and a thorough understanding of the text

N/a Text ma but lack the marg	y be highlighted, written notes in ins.	Margin notes are inconsistent throughout the text; may be well done in some chapters, but not in others.	Frequent and consistent markings throughout text (not bunched in only 1 section).
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### Image Rubric:

0	1	2
The drawn object cannot be identified and/ or is not connected to the novel	The drawn object is somewhat identifiable and/ or is loosely connected to the novel	The drawn object is clearly identifiable and is connected to the novel
Pictures show little to no effort and creativity; looks rushed	Pictures are present when needed	All pictures are neatly colored in and show effort and creativity.
Few to none of the words, phrases, and sentences are written legibly	Most of the words, phrases, and sentences are written legibly	All words, phrases, and sentences are written legibly
Few to none of the words, phrases, and sentences are directly from the text	Most of the words, phrases, and sentences are directly from the text, but some may be ideas not explicitly stated	Uses words, phrases, and sentences directly from the text
Typed <sup>1</sup> / <sub>4</sub> of a page or less explanation	Typed <sup>1</sup> / <sub>2</sub> to <sup>3</sup> / <sub>4</sub> page explanation	Typed one page or more explanation
Responses do not show an attempt AND/ OR little understanding of the text.	The responses show an attempt and an understanding of the text.	3 responses show an effort and a true understanding of the text.
Details from the novel are missing OR did not include.	Some details from the novel may be missing when they are needed.	Details from the novel are used and explained as needed.
Many mistakes made in terms of proper spelling, punctuation, capitalization, and grammar; it looks as if the assignment was not edited or revised	Few mistakes made in terms of proper spelling, punctuation, capitalization, and grammar	Proper spelling, punctuation, capitalization, and grammar have been used.

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# **GWA Rising 8<sup>th</sup> Graders Summer Math Work**

Hello, rising 8<sup>th</sup> grade parents! GWA is excited to be your student's guide to mathematics and more during their 8<sup>th</sup> grade year. No matter what 8<sup>th</sup> grade math course your student has, you're in for a great year!

To help your rising 8<sup>th</sup> grader start off on the right foot in math class, we wanted to give them some light review to work on over the summer. It's nothing too in-depth, but it will be important for them to review four key concepts to be best prepared for all 8<sup>th</sup> grade math courses:

- <u>BASIC COMPUTATION</u>: Throughout the year, there will be integers, fractions, and decimals in all the work that we do. To focus on the actual 8<sup>th</sup> grade level content, basic computation must be mastered. You can't factor without your multiplication facts or put numbers in simplest radical form if you don't know the square roots.
- 2) <u>EVALUATING EXPRESSIONS</u>: Before entering 8<sup>th</sup> grade, students should know how to input a value into a formula to get the output. This is the basis of graphing and key to the concept of functions.
- 3) <u>SOLVING EQUATIONS</u>: Throughout the year, we'll go deeper and deeper into the 8<sup>th</sup> grade level of solving equations which is only possible if they have mastered the basic concept of inverse operations first.
- 4) <u>MODELING SITUATIONS WITH MATH</u>: Most students can mimic a teacher in solving an equation, but we need students who know how to fit information together for themselves. By the end of 7<sup>th</sup> grade, they should not only be able to solve basic equations but also write them in the first place.

"But, do I really need to do MATH over the SUMMER?!" your student will likely say. Why, yes, Virginia, there is math even during the summer. However, don't sweat it! <u>These few pages of work are not mandatory</u> to complete, nor will they be graded in the Fall. <u>However, they will help your student be prepared, and the work</u> <u>can be turned in to their math teacher during the first week of school</u>. Completing these pages will help your rising 8<sup>th</sup> grader firm up their basic understanding and come in fully prepared to do their best in 8<sup>th</sup> grade.

It would be a good idea to split this work up over the whole summer. Don't do the work all in a day or a week! The idea is to keep math fresh for them throughout the summer a little at a time while not being a killjoy to their fun, so one sheet per week will do the trick.

You'll note that each page of work has an additional page with the answers on it. Please remind your students over and over again that math is not about getting the answers. We've already given you answers! Instead, it's about understanding the concepts and knowing HOW to get those answers in the first place. (i.e. Showing work!) If your student can get the right answer but can't show any work, encourage them to watch the included video lessons from Khan Academy. Just having an answer is not enough. They need to come back in the Fall truly understanding these topics, ready to rock'n'roll throughout the year! It's not about getting the answer, it's about deepening our learning of the mathematics.

If you have any questions about this work or the 8<sup>th</sup> grade math program, please feel free to contact us at any time over the summer. We're here to help! We look forward to working with your student next year to help them grow deeper in their mathematical understanding and study skills as we prepare them for entering the upper school.

Sincerely,

The 8<sup>th</sup> Grade Teachers

#### **Integer Computation Practice**

You can watch videos at Khan Academy on integer operations at:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-negative-numbers#pre-algebra-add-negatives-intros

Or simply search Khan Academy for "adding negative numbers" or other operations.

## Perform the following integer operations <u>WITHOUT A CALCULATOR</u>. Show your work! Check your answers with the answer key on the next page.

- 1) -8 + -102) 7 + -113) -8 + 124) -3 + 3
- $5) 6 + -9 \qquad 6) 4 + -12 \qquad 7) 5 + 13 \qquad 8) 7 + 7$
- 9) 8 -- 10 10) 7 -- 11 11) 8 12 12) 3 3
- 13) 6 9 14) 4 12 15) 5 13 16) 7 12
- 17) 8 \*- 10 - 3 \* 3
- 21)  $-16 \div -2$  22)  $12 \div -4$  23)  $\frac{-15}{3}$ 24)  $\frac{7}{-7}$

### Integer Computation Practice ANSWER KEY

You can watch videos at Khan Academy on integer operations at:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-negative-numbers#pre-algebra-add-negatives-intros

Or simply search Khan Academy for "adding negative numbers" or other operations.

# *Perform the following integer operations <u>WITHOUT A CALCULATOR</u>. Show your work! Check your answers with the answer key on the next page.*

1) - 8 +- 10	2) 7 +- 11	3) - 8 + 12	4) - 3 + 3
- 18	- 4	4	0
5) - 6 +- 9	6) 4 +- 12	7) - 5 + 13	8) - 7 + 7
- 15	- 8	8	0
9) - 8 10	10) 7 11	11) - 8 - 12	12) - 3 - 3
2	18	- 20	- 6
13) - 6 9	14) 4 12	15) — 5 — 13	16) 7 — 12
3	16	- 18	- 5
17) - 8 *- 10	18) 7 *- 11	19) — 8 * 12	20)
- 3 * 3			
80	- 77	- 96	- 9
21) - 16÷ - 2	22) 12÷ – 4	23) $\frac{-15}{2}$	
24) $\frac{7}{-7}$	,	· 3	
8	- 3	- 5	- 1

### **Decimal Computation Practice**

You can watch videos at Khan Academy on decimal operations at:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-decimals#pre-algebra-add-decimals

Or simply search Khan Academy for "adding decimals" or other operations.

## Perform the following decimal operations <u>WITHOUT A CALCULATOR</u>. Show your work! Check your answers with the answer key on the next page.

1) 0.8 + 1.022) 7.35 + 1.1 3) 3.8 + 0.124) 3 + 0.3 5) 2.26 + 0.009 6) 3.4 + 72 7) 5.1 + 1.35 8) 7.1 + 0.17 9) 8 - 1.05 10) 2.7 - 1.1 11) 3.48 - 1.25 12) 3 - 2.313) 6.7 - 2.91 14) 4.55 - 1.2 15) 2.5 - 1.316) 7 - 1.2 17) 1.8 \* 2.1 18) 7 \* 1.4 19) 2.3 \* 1.4 20) 0.3 \* 0.3 24) <u>7.28</u> 7 **23)**  $\frac{1.55}{0.5}$ 21) 1.6÷2 22) 1.2÷0.4

### Decimal Computation Practice ANSWER KEY

You can watch videos at Khan Academy on decimal operations at:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-decimals#pre-algebra-add-decimals

Or simply search Khan Academy for "adding decimals" or other operations.

# *Perform the following decimal operations <u>WITHOUT A CALCULATOR</u>. Show your work! Check your answers with the answer key on the next page.*

1) 0.8 + 1.02	2) 7.35 + 1.1	3) 3.8 + 0.12	4) 3 + 0.3
1.82	8.45	3.92	3.3
5) 2.26 + 0.009	6) 3.4 + 72	7) 5.1 + 1.35	8) 7.1 + 0.17
2.269	75.4	6.45	7.27
9) 8 - 1.05	10) 2.7 - 1.1	11) 3.48 - 1.25	12) 3 - 2.3
6.95	1.6	2.23	0.7
13) 6.7 – 2.91 16) 7 – 1.2	14) 4.55 - 1.2	15) 2.5	- 1.3
3. 79	3.35	1.2	5.8
17) 1.8 * 2.1	18) 7 * 1.4	19) 2.3 * 1.4	20) 0.3 * 0.3
3.78	9.8	3.22	0.09
21) 1.6÷2	22) 1.2÷0.4	23) $\frac{1.55}{0.5}$	24) $\frac{7.28}{7}$
0.8	3	3.1	1.04

### **Fraction Computation Practice**

You can watch videos at Khan Academy on fraction operations at:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-fractions#pre-algebra-adding-subtracting-frac

Or simply search Khan Academy for "adding fractions" or other operations.

*Perform the following fraction operations <u>WITHOUT A CALCULATOR</u>. Show your work! Check your answers with the answer key on the next page.* 

1)  $\frac{1}{2} + \frac{1}{4}$  2)  $\frac{3}{8} + \frac{3}{8}$  3)  $\frac{3}{5} + \frac{1}{3}$  4)  $\frac{3}{4} + \frac{5}{6}$ 

5) 
$$\frac{2}{3} + \frac{1}{9}$$
 6)  $\frac{3}{4} + \frac{7}{2}$  7)  $\frac{5}{3} + \frac{1}{5}$  8)  $\frac{1}{6} + \frac{2}{9}$ 

- 9)  $\frac{1}{2} \frac{1}{4}$  10)  $\frac{3}{8} \frac{3}{8}$  11)  $\frac{3}{5} \frac{1}{3}$  12)  $\frac{5}{4} \frac{5}{6}$
- 13)  $\frac{2}{3} \frac{1}{9}$  14)  $\frac{7}{2} \frac{3}{4}$  15)  $\frac{5}{3} \frac{1}{5}$  16)  $\frac{5}{6} \frac{2}{9}$
- 17)  $\frac{1}{8} * \frac{2}{3}$  18)  $\frac{3}{4} * \frac{2}{9}$  19)  $\frac{2}{3} * \frac{4}{5}$  20)  $\frac{1}{3} * \frac{1}{3}$
- 21)  $\frac{1}{6} \div \frac{2}{3}$  22)  $\frac{1}{2} \div \frac{3}{4}$  23)  $\frac{3}{5} \div \frac{2}{5}$  24)  $\frac{3}{7} \div \frac{2}{9}$

### Fraction Computation Practice ANSWER KEY

You can watch videos at Khan Academy on fraction operations at:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-fractions#pre-algebra-adding-subtracting-frac

Or simply search Khan Academy for "adding fractions" or other operations.

# *Perform the following fraction operations <u>WITHOUT A CALCULATOR</u>. Show your work! Check your answers with the answer key on the next page.*

1) $\frac{1}{2} + \frac{1}{4}$ $\frac{3}{4}$	2) $\frac{3}{8} + \frac{3}{8}$	3) $\frac{3}{5} + \frac{1}{3}$ $\frac{14}{15}$	4) $\frac{3}{4} + \frac{5}{6}$ $\frac{19}{12}$
5) $\frac{2}{3} + \frac{1}{9}$ $\frac{7}{9}$	6) $\frac{3}{4} + \frac{7}{2}$ $\frac{17}{4}$	7) $\frac{5}{3} + \frac{1}{5}$	8) $\frac{1}{6} + \frac{2}{9}$ $\frac{7}{18}$
9) $\frac{1}{2} - \frac{1}{4}$ $\frac{1}{4}$	10) $\frac{3}{8} - \frac{3}{8}$	11) $\frac{3}{5} - \frac{1}{3}$ $\frac{4}{15}$	12) $\frac{5}{4} - \frac{5}{6}$ $\frac{5}{12}$
13) $\frac{2}{3} - \frac{1}{9}$	14) $\frac{7}{2} - \frac{3}{4}$ $\frac{11}{4}$	15) $\frac{5}{3} - \frac{1}{5}$	16) $\frac{5}{6} - \frac{2}{9}$ $\frac{11}{18}$
17) $\frac{1}{8} * \frac{2}{3}$ $\frac{1}{12}$	18) $\frac{3}{4} * \frac{2}{9}$ $\frac{1}{6}$	19) $\frac{2}{3} * \frac{4}{5}$	20) $\frac{1}{3} * \frac{1}{3}$
21) $\frac{1}{6} \div \frac{2}{3}$ $\frac{1}{4}$	22) $\frac{1}{2} \div \frac{3}{4}$	23) $\frac{3}{5} \div \frac{2}{5}$	24) $\frac{3}{7} \div \frac{2}{9}$ $\frac{27}{14}$

#### **Evaluating Expressions Practice**

You can watch videos at Khan Academy on evaluating expressions at:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions#pre-algebra-substitution

Or simply search Khan Academy for "evaluating expressions".

Use the equation y = 2x + 3 and plug in the given inputs to find the output value of y. SHOW YOUR WORK!

1) x = 2 2) x = -3 3) x = 0 4)  $x = \frac{3}{2}$ 

Use the equation a = b - 5 and plug in the given inputs to find the output value of a. <u>SHOW YOUR WORK</u>!

5) b = 9 6) b = 2 7) b = -3 8) b = 5

Use the equation  $c = \frac{1}{2}d$  and plug in the given inputs to find the output value of c. <u>SHOW YOUR WORK</u>! 9) d = 8 10) d = -14 11) d = 12 12) d = 7

Use the equation  $y = \frac{2}{3}x - 2$  and plug in the given inputs to find the output value of y. <u>SHOW YOUR WORK</u>! 13) x = -6 14) x = -3 15) x = 3 16) x = 6

#### Evaluating Expressions Practice ANSWER KEY

You can watch videos at Khan Academy on evaluating expressions at:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions#pre-algebra-substitution

Or simply search Khan Academy for "evaluating expressions".

Use the equation y = 2x + 3 and plug in the given inputs to find the output value of y. <u>SHOW YOUR WORK</u>!

1) $x = 2$	2) $x = -3$	3) $x = 0$	4) $x = \frac{3}{2}$
y = 7	y = -3	y = 3	y = 6

Use the equation a = b - 5 and plug in the given inputs to find the output value of a. SHOW YOUR WORK! 5) b = 9 a = 4 a = -3a = -8

a = 0

Use the equation  $c = \frac{1}{2}d$  and plug in the given inputs to find the output value of c. SHOW YOUR WORK! 9) d = 8 10) d = -14 11) d = 12 12) d = 7c = 4 c = -7 c = 6  $c = \frac{7}{2}$ 

Use the equation  $y = \frac{2}{3}x - 2$  and plug in the given inputs to find the output value of y. <u>SHOW YOUR WORK!</u> 13) x = -6 y = -6 y = -6 y = -4 y = 0y = 2

#### **Solving Equations Practice**

You can watch videos at Khan Academy on solving two-step equations at:

https://www.khanacademy.org/math/algebra-basics/alg-basics-linear-equations-and-inequalities/alg-basics-two-steps-equations-intro/v/why-we-do-the-same-thing-to-both-sides-two-step-equations

Or simply search Khan Academy for "solving one-step equations" or "solving two-step equations".

Solve the following equations. Remember: the answer isn't important. Showing your work and doing the algebraic manipulation is what you need to have mastered. Don't just put an answer. <u>SHOW YOUR WORK</u>!

1) 2x = 8 2)  $\frac{x}{3} = 12$  3)  $\frac{2}{5}x = 4$  4) x + 5 = -9

5) 
$$x - 4 = -6$$
  
 $- 3x = 12$ 
6)  $\frac{3}{4}x = 75$ 
7)  $\frac{x}{5} = -2$ 
8)

9) 
$$2x - 1 = 7$$
  
10)  $3x + 5 = -7$   
11)  $\frac{x}{4} + 5 = 8$   
12)  $\frac{x}{3} - 2 = 0$ 

13) 
$$\frac{2}{3}x + 5 = 11$$
  
 $\frac{14}{2}x - 2 = 1$   
15)  $2x + 7 = 13$   
16)  $\frac{x}{5} - 3 = -1$ 

17) $-1 = 2x - 7$	18) $11 = 3x + 5$	19) $3 = \frac{x}{2} + 7$	20)
$10 = \frac{1}{2}x + 7$			

### Solving Equations Practice ANSWER KEY

You can watch videos at Khan Academy on solving two-step equations at:

https://www.khanacademy.org/math/algebra-basics/alg-basics-linear-equations-and-inequalities/alg-basics-two-steps-equations ons-intro/v/why-we-do-the-same-thing-to-both-sides-two-step-equations

Or simply search Khan Academy for "solving one-step equations" or "solving two-step equations".

Solve the following equations. Remember: the answer isn't important. Showing your work and doing the algebraic manipulation is what you need to have mastered. Don't just put an answer. <u>SHOW YOUR WORK</u>!

1) $2x = 8$	2) $\frac{x}{3} = 12$	3) $\frac{2}{5}x = 4$	4) $x + 5 = -9$
x = 4	x = 36	x = 10	x = -14

5) $x - 4 = -6$	6) $\frac{3}{4}x = 75$	7) $\frac{x}{5} = -2$	8)
-3x = 12			

$$x = -2$$
  $x = 100$   $x = -10$   $x = -4$ 

9) $2x - 1 = 7$	10) $3x + 5 = -7$	11) $\frac{x}{4} + 5 = 8$	
12) $\frac{x}{3} - 2 = 0$			
x = 4	x = -4	x = 12	x = 6

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13) $\frac{2}{3}x + 5 = 11$	14) $\frac{1}{2}x - 2 = 1$	15) $2x + 7 = 13$	16)
$\frac{x}{5} - 3 = -1$			
x = 9	x = 6	x = 3	x = 10

17) $-1 = 2x - 7$	18) $11 = 3x + 5$	19) $3 = \frac{x}{2} + 7$	20)
$10 = \frac{1}{2}x + 7$			
x = 3	x = 2	x = -8	x = 6

## Solving Word Problems with Equations Practice

Search Khan Academy for "writing equations" or watch these videos on writing basic expressions and equations:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-alg-expression-word-problems/v/writing-basic-expressions-from-word-problems-examples

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-equation-word-problems/v/constructing-basic-equations-examples

#### Write an equation using one variable to represent each situation and <u>THEN SOLVE THAT EQUATION</u>.

1) A large sum of money is split between 4 people giving each person \$2, 375, 850. How much money was there originally? Use *m* to represent how much money there was originally.

2) 584 hornets all weigh the same amount. If all together they weigh 1168 oz, how much does a single hornet weigh? Use h to represent the weight of a hornet.

3) Your college fund already has a lot of money in it. Then you get a gift of \$1,278 to add to it. If that gift gives you a total of \$13,752 in your college fund, how much was there before the gift? Use *c* to represent how much money you had in your college fund before the gift.

4) Your retirement fund lost \$139,758 in value. If it is now worth 514,523, how much was there before your loss? Use r to represent how much money was in your retirement fund originally.

5) To buy pizzas for the whole  $8^{th}$  grade class, it will cost \$5 per pizza plus a \$25 delivery charge. If the school spent a total of \$210 on pizzas, how many pizzas did they have delivered? Use p to represent the number of pizzas delivered.

### Solving Word Problems with Equations Practice ANSWER KEY

Search Khan Academy for "writing equations" or watch these videos on writing basic expressions and equations:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-alg-expression-word-problems/v/writing-basic-expressions-from-word-problems-examples

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-equation-word-problems/v/constructing-basic-equations-examples

#### Write an equation using one variable to represent each situation and THEN SOLVE THAT EQUATION.

1) A large sum of money is split between 4 people giving each person \$2, 375, 850. How much money was there originally? Use *m* to represent how much money there was originally.

$$\frac{m}{4} = 2,375,850$$
  
 $m = \$9,503,400$ 

2) 584 hornets all weigh the same amount. If all together they weigh 1168 oz, how much does a single hornet weigh? Use h to represent the weight of a hornet.

$$584h = 1168$$
$$h = 2 oz$$

3) Your college fund already has a lot of money in it. Then you get a gift of \$1,278 to add to it. If that gift gives you a total of \$13,752 in your college fund, how much was there before the gift? Use *c* to represent how much money you had in your college fund before the gift.

$$c + 1,278 = 13,752$$
  
 $c = $12,474$ 

4) Your retirement fund lost \$139,758 in value. If it is now worth 514,523, how much was there before your loss? Use r to represent how much money was in your retirement fund originally.

$$r - 139,758 = 514,523$$
  
 $r = $654,281$ 

5) To buy pizzas for the whole  $8^{th}$  grade class, it will cost \$5 per pizza plus a \$25 delivery charge. If the school spent a total of \$210 on pizzas, how many pizzas did they have delivered? Use p to represent the number of pizzas delivered.

$$5p + 25 = 210$$
$$p = 37 pizzas$$

### **Representing Words with Equations Practice**

Search Khan Academy for "writing equations" or watch these videos on writing basic expressions and equations:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-alg-expression-word-problems/v/writing-basic-expressions-from-word-problems-examples

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-equation-word-problems/v/constructing-basic-equations-examples

#### Write an equation using two variables to represent each situation. THERE IS NOTHING TO SOLVE!

1) It costs \$9 per pack of stickers that you order from Amazon plus a \$5 shipping fee (since it's not Prime eligible). Use c to represent the total cost and p to represent the number of packs of stickers.

2) A portable air conditioning fan (yes, it exists, but doesn't work that well) needs 3 oz of water in it all the time just to cool the fan motor. It needs an additional 5 oz of water for every hour that you want to run the fan. Use w to represent how many ounces of water you need and h to represent how many hours you want to run the fan.

3) Lisa's age and John's age add up to 54. Use l to represent Lisa's age and j to represent John's age.

4) The soccer team is ordering practice jerseys which cost \$17 each plus the jersey company charges an overall set-up fee of \$25 to get their shirt pressing machine ready. Use *c* to represent the total cost and *j* to represent the number of jerseys ordered.

5) A group of 30 people pool their money to buy lottery tickets and win it big. Use l to represent how much the lottery is worth overall and p to represent how much money each person would get.

#### Representing Words with Equations Practice ANSWER KEY

Search Khan Academy for "writing equations" or watch these videos on writing basic expressions and equations:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-alg-expression-word-problems/v/writing-basic-expressions-from-word-problems-examples

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-equation-word-problems/v/constructing-basic-equations-examples

#### Write an equation using two variables to represent each situation. THERE IS NOTHING TO SOLVE!

1) It costs \$9 per pack of stickers that you order from Amazon plus a \$5 shipping fee (since it's not Prime eligible). Use c to represent the total cost and p to represent the number of packs of stickers.

$$c = 9p + 5$$

2) A portable air conditioning fan (yes, it exists, but doesn't work that well) needs 3 oz of water in it all the time just to cool the fan motor. It needs an additional 5 oz of water for every hour that you want to run the fan. Use w to represent how many ounces of water you need and h to represent how many hours you want to run the fan.

$$w = 5h + 3$$

3) Lisa's age and John's age add up to 54. Use l to represent Lisa's age and j to represent John's age.

$$l + j = 54$$

4) The soccer team is ordering practice jerseys which cost \$17 each plus the jersey company charges an overall set-up fee of \$25 to get their shirt pressing machine ready. Use *c* to represent the total cost and *j* to represent the number of jerseys ordered.

$$c = 17j + 25$$

5) A group of 30 people pool their money to buy lottery tickets and win it big. Use l to represent how much the lottery is worth overall and p to represent how much money each person would get.

$$p = \frac{l}{30}$$



## Supply List – Middle School

## 2022-2023

### 8<sup>th</sup> Grade

- 1 Three-ring binder (1/2 to 1 inch)
- Notebook paper
- Pencils
- Red, black, and blue pens
- Highlighters (at least two colors)
- Colored pencils
- Post-It notes
- Scissors
- Ruler
- School Issued Chromebook Laptop, Stylus, and Charger.

#### 8<sup>th</sup> Grade bundle to be purchased in the Dawg Shop:

Casio FX-260 Solar II Scientific Calculator and a student planner.

#### Novel to be purchased:

Summer Reading: The Princess Bride by William Goldman (Honors and Academic English)