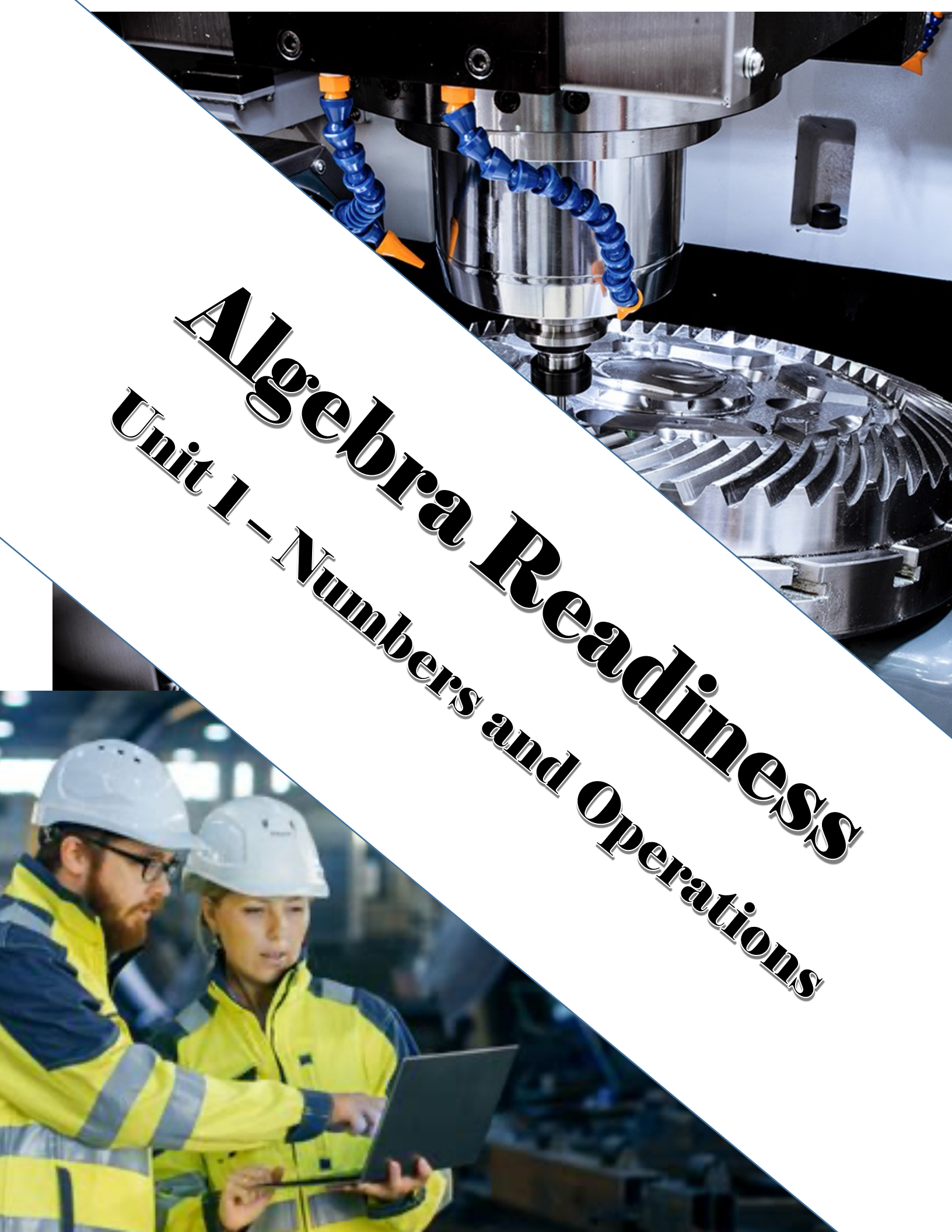


The background of the slide is a composite image. The top right portion shows a close-up of a CNC machine's spindle, which is a polished metal cylinder with blue flexible coolant hoses attached. It is positioned over a large, intricate metal gear or turbine component. The bottom left portion shows two industrial workers, a man and a woman, both wearing white hard hats and high-visibility yellow safety vests. They are looking at a laptop computer together. The text is overlaid on a white diagonal band that runs from the bottom left towards the top right.

Algebra Readiness

Unit 1 – Numbers and Operations

Algebra Readiness - Fall Outline

Unit	Target #	Learning Target
Unit 1: Numbers and Operations	1	I can add and subtract integers.
	2	I can add and subtract decimals.
	3	I can multiply and divide integers.
	4	I can multiply and divide decimals.
	5	I can find the value of expressions using the order of operations.
Unit 2: Working with Ratios and Fractions	6	I can write, simplify, and find equivalent ratios.
	7	I can add and subtract fractions.
	8	I can multiply and divide fractions.
	9	I can convert between fractions, decimals, and percents.
	10	I can solve real-world percent problems.

Startups and Startups

Warmups

<u>Date:</u>	
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Warmups

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Warmups

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Class Notes and Activities

Class Notes and Activities

Lesson:

E.Q.:

Big Ideas

Wrap-up

Lesson:

E.Q.:

Big Ideas

Wrap-up

Lesson:

E.Q.:

Big Ideas

Wrap-up

Lesson:

E.Q.:

Big Ideas

Wrap-up

Lesson:

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Big Ideas

Wrap-up

Lesson:

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Wrap-up

Lesson:

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Big Ideas

Wrap-up

Lesson:

E.Q.:

Big Ideas

Wrap-up

Lesson:

E.Q.:

Big Ideas

Wrap-up

Lesson:

E.Q.:

Big Ideas

Wrap-up

Unit 1 Assignments

Number and Operations

Assignment 1.1: Adding and Subtracting Integers

Sketch a picture representing the expression, then evaluate each expression.

1) $7 + (-6)$

2) $(-8) + (-7)$

3) $(-7) + 2$

4) $(-8) + 6$

5) $(-3) + (-7)$

6) $4 + (-3)$

7) $(-5) + 6$

8) $(-4) + (-2)$

9) $(-3) + 4$

10) $(-2) + 2$

11) $5 + (-7)$

12) $2 + (-5)$

13) $(-5) + 3 + 1$

14) $(-8) + 2 + (-2)$

Assignment 1.2: Adding and Subtracting Integers

Sketch a picture representing the expression, then evaluate each expression.

1) $(+8) - (+7) =$

2) $(+4) - (+1) =$

3) $(-9) - (-4) =$

4) $(+4) - (+3) =$

5) $(+5) - (-7) =$

6) $(-6) - (+8) =$

7) $(+6) - (-4) =$

8) $(+8) - (+7) =$

9) $(0) - (-8) =$

10) $(-8) - (+3) =$

11) $(-7) - (-8) =$

12) $(+6) - (+9) =$

$$13) (0) - (+1) =$$

$$14) (+3) - (-5) =$$

$$15) (0) - (-6) =$$

$$16) (-3) - (-1) =$$

$$17) (-9) - (+5) =$$

$$18) (+5) - (-8) =$$

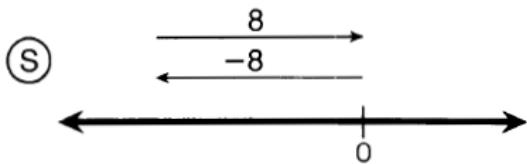
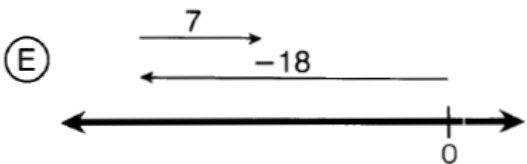
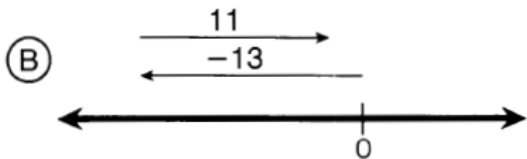
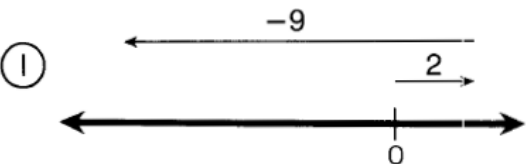
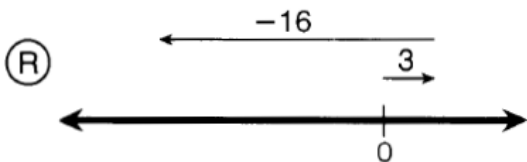
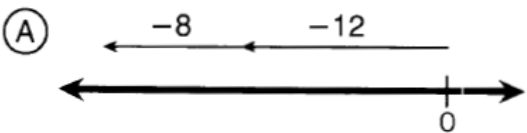
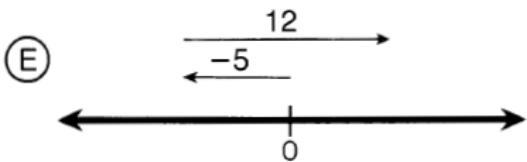
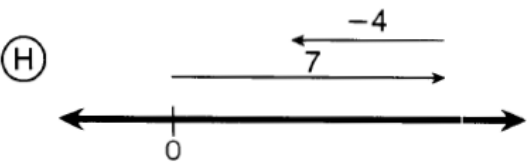
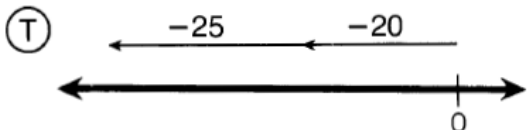
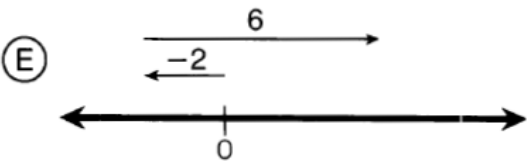
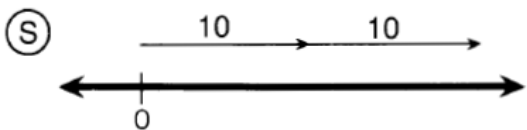
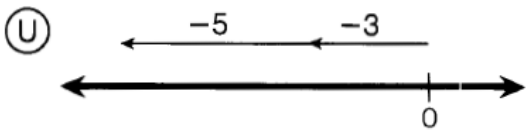
$$19) (-1) - (+7) =$$

$$20) (+4) - (-2) =$$

Assignment 1.3: Adding and Subtracting Integers

How Is a Fast Racehorse Like a Dessert?

For each exercise, identify the integer that results from combining the two arrows. Write the letter of each exercise below the corresponding integer at the bottom of the page. You'll learn the sweet truth!



3	7	-7	20	-20	0	-8	-13	-11	-2	4	-45
---	---	----	----	-----	---	----	-----	-----	----	---	-----

Assignment 1.4: Adding and Subtracting Integers

Word Problem Practice

Show your work for each problem! Underline the important information and show negative and positive values you used to get your answer.

- 1) Bruce deposits \$30 into his checking account on Tuesday. On Wednesday, he withdraws \$12. On Thursday, he withdraws another \$10. Write an integer expression that represents the situation and then determine the overall change in his account.

- 2) A crow takes flight from ground level and reaches a height of 12 feet. It then decreases its flying height by 8 feet to swoop under a bridge. What is the crow's elevation after all changes have occurred?

- 3) Nadia owes her brother \$25. She then gets paid \$14 for babysitting her cousins the week before.
 - a. Does Nadia have enough money to pay her brother back? What does this tell you about the sign of your answer?

 - b. Write an integer expression showing the overall change in what Nadia owes her brother. How much money does she still owe?

- 4) There were 28 students in Perry's 1st period class on Monday. Then 7 students had to change their schedules and switched out of her class. How many students are left in Perry's class?

Assignment 2.1: Adding and Subtracting Decimals

Add these decimals by breaking up the decimal and the whole number, then finding a total. The first problem is done for you as an example.

$$\begin{aligned} 7.9 + 2.3 &= 7 + 2 + .9 + .3 \\ &= 9 + 1.2 \\ &= 10.2 \end{aligned}$$

$$3.1 + 8.6 =$$

$$8.1 + 3.5 =$$

$$8.1 + 6.1 =$$

$$2.4 + 1.3 =$$

$$6.3 + 1.6 =$$

$$4.7 + 4.7 =$$

$$2.3 + 2.4 =$$

$$4.3 + 7.6 =$$

$$6.8 + 9.2 =$$

$$4.5 + 9.3 =$$

$$2.7 + 9.8 =$$

Assignment 2.2: Adding and Subtracting Decimals

For each sum, rewrite the sum into a simpler form by “trading” values from one addend to the other. There are many ways to do this, find one that makes it easy for you, you can even change it more than once. The first one is done as an example. (Use standard algorithm if needed)

$$\begin{array}{r} 6.95 \\ +7.45 \\ \hline \end{array}$$

*Equivalent
Problem:*

$$\begin{array}{r} 7.00 \\ +7.40 \\ \hline 14.40 \end{array}$$

$$\begin{array}{r} 5.59 \\ +2.71 \\ \hline \end{array}$$

$$\begin{array}{r} 2.89 \\ +2.61 \\ \hline \end{array}$$

$$\begin{array}{r} 9.85 \\ +2.38 \\ \hline \end{array}$$

$$\begin{array}{r} 4.97 \\ +2.63 \\ \hline \end{array}$$

$$\begin{array}{r} 7.75 \\ +8.36 \\ \hline \end{array}$$

$$\begin{array}{r} 6.73 \\ +6.27 \\ \hline \end{array}$$

$$\begin{array}{r} 4.83 \\ +2.99 \\ \hline \end{array}$$

$$\begin{array}{r} 7.80 \\ +4.29 \\ \hline \end{array}$$

Assignment 2.3: Adding and Subtracting Decimals

Write an expression to represent the sum and then find the total price for the meal(s).

Find The Total Price

Directions: Add the menu items to get the total price of all items ordered.

lemonade: \$1.25	hamburger: \$3.20	ice cream: \$1.40
milk: \$1.45	taco: \$0.90	cupcake: \$0.85
coffee: \$2.00	salad: \$1.05	2 cookies: \$1.00

Janie ordered 1 lemonade and 1 taco.

Peter ordered 1 milk and 1 hamburger.

Suzette ordered 1 coffee, 1 taco, and 1 ice cream.

Louisa ordered 1 taco and 1 cupcake.

Mary and Bob ordered 2 lemonades and 2 cookies.

Cora and Robert each ordered a milk, a salad, and a cupcake.

Assignment 2.4: Adding and Subtracting Decimals

Write an expression to represent the sum and then find the total value described.

Anne has \$91.89 and Melissa has \$8.20. How much money do they have together?

Answer:

Norma gives \$5.33 to David. If Norma started with \$73.88, how much money does she have left?

Answer:

Walter has \$49.01 and Billy has \$29.83. How much more does Walter have than Billy?

Answer:

After buying some candies for \$19.14, Linda has \$5.18 left. How much money did Linda have to begin with?

Answer:

Charles gives \$7.84 to Betty. If Charles started with \$14.61, how much money does he have left?

Answer: