

MAFS.7.EE.2.3

**A CALCULATOR
IS ALLOWED**

1. Use the information provided to answer Part A and Part B.

Each bulleted statement describes how the amount of income tax is determined for yearly taxable incomes in different ranges.

- Yearly taxable incomes of \$8,925 or less are taxed at a flat rate of 10%.
- For yearly taxable incomes from \$8,926 to \$36,250, the first \$8,925 is taxed at 10% and any income beyond \$8,925 is taxed at 15%.
- For yearly taxable incomes greater than \$36,250, the first \$8,925 is taxed at 10%, the next \$27,325 is taxed at 15%, and any income beyond \$36,250 is taxed at 25%.

Part A

Mr. Vance's yearly taxable income is \$35,675. What is the dollar amount taken out for taxes based on Mr. Vance's taxable income?

←	→	↶	↷	✖					
1	2	3	+	-	•	÷			
4	5	6	<	≤	=	≥	>		
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π
0	.	-							

Part B

Mr. Rivera's taxable income is \$20 each hour before taxes are taken out. Mr. Rivera worked a total of 40 hours each week for 50 weeks.

What is the dollar amount, to the nearest dollar, taken out for taxes based on Mr. Rivera's taxable income?

←	→	↶	↷	✖					
1	2	3	+	-	•	÷			
4	5	6	<	≤	=	≥	>		
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π
0	.	-							

2. Use the information provided to answer Part A and Part B.

Today, Joelle walked 20 minutes at a rate of 3 miles per hour, and she ran 15 minutes at a rate of 6 miles per hour.

Part A

How many total miles did Joelle travel while walking and running?

Part B

Tomorrow, Joelle wants to travel a total of 4 miles by walking and running. She plans to run for 20 minutes at a rate of 6 miles per hour.

How many **minutes** should she walk at a rate of 3 miles per hour to finish traveling the 4 miles?

3. Use the information provided to answer Part A and Part B.

A teacher surveyed students in four classes to determine the location for a field trip. Each student chose only one location. The table shows the number of students from each class who chose each location.

Field Trip Choices

Class	Number of Students Who Chose the Zoo	Number of Students Who Chose the Museum	Number of Students Who Chose the Planetarium
Class E	10	9	8
Class F	8	11	11
Class G	12	8	5
Class H	6	10	8

Part A

Determine the percent of students in each class who chose the museum. What is the order, from **least to greatest**, of the percents for each class?

- Ⓐ Class E, Class F, Class G, Class H
- Ⓑ Class G, Class E, Class F, Class H
- Ⓒ Class G, Class E, Class H, Class F
- Ⓓ Class H, Class F, Class E, Class G

Part B

The total number of students who chose the zoo is how many times as great as the total number of students who chose the planetarium?

- Ⓐ 1
- Ⓑ $1\frac{1}{18}$
- Ⓒ $1\frac{1}{8}$
- Ⓓ $1\frac{1}{9}$

4. At the beginning of the month, Alexa's bank account contained \$4329.97. She then made two deposits of \$452.28 each and a withdrawal of \$279.34. Alexa estimates that she has about \$5000 in her account. Use a mental strategy to determine if her estimate is reasonable. Explain and describe your strategy.

Write your answer in the space provided.

5. Bruno noticed today's gasoline price at the local convenience store was advertised as \$3.40 per gallon. This price is 15% above last year's price. Calculate last year's price, showing each step of your work.

MAFS.7.EE.2.3-FSA Practice

**A CALCULATOR
IS ALLOWED**

A Florida factory produces fishing reels at a rate of 800 per day, every day. In April, they are forced to cut their production by $\frac{1}{5}$ due to an aluminum shortage.

1. A chain of sporting goods stores orders 20,000 fishing reels. Will the factory be able to produce enough fishing reels in the 30 days of April to meet this order? Explain how you know.

Write your answer in the space provided.

2. How many days will it take the factory to produce the 20,000 fishing reels?

← → ↶ ↷ ✕											
1	2	3	+	-	•	÷					
4	5	6	<	≤	=	≥	>				
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π		
0	.	-									

3.	<p>Brittany's family went to dinner at her favorite restaurant because her father had a coupon for 15% off. Her father said if she could correctly figure out the total cost of dinner, including the $6\frac{1}{2}\%$ sales tax, he would take them all out for frozen yogurt on the way home. The meal cost \$53.52 without the discount. Brittany determined the total, with the discount and sales tax, will be \$44.50. Did Brittany figure it out correctly? Show your work to support your answer.</p>
4.	<p>Jordan earned \$200 this month delivering newspapers. His mom said he must put 20% into his savings account. He wants to buy headphones that cost \$99.95 and two shirts that cost \$17.99 each. He also has to pay 7% sales tax on his purchases.</p> <p>Jordan said, "No problem. I will put 20% into savings, buy the things I want, and still have about \$10 left." Use estimation to determine if Jordan's calculation is reasonable. Show your work.</p>

5. A restaurant makes a special seasoning for all its grilled vegetables. Here is how the ingredients are mixed:

$\frac{1}{2}$ of the mixture is salt

$\frac{1}{4}$ of the mixture is pepper


$\frac{1}{8}$ of the mixture is garlic powder

$\frac{1}{8}$ of the mixture is onion powder

When the ingredients are mixed in the same ratio as shown above, every batch of seasoning tastes the same.

Study the measurements for each batch in the table. Fill in the blanks so that every batch will taste the same.

	Batch 1	Batch 2	Batch 3
Salt (cups)	1	_____	_____
Pepper (cups)	_____	1	_____
Garlic powder (cups)	$\frac{1}{4}$	_____	1
Onion powder (cups)	_____	_____	1

	MAFS.7.EE.2.4	 A CALCULATOR IS ALLOWED
1.	<p>Two equations are shown.</p> <ul style="list-style-type: none">• Equation 1: $-0.5x - 4 = 1.5$• Equation 2: $-0.5(x - 4) = 1.5$ <p>Select each statement that must be true.</p> <p>Ⓐ x represents a negative value in both equations.</p> <p>Ⓑ x represents a positive value in both equations.</p> <p>Ⓒ x represents a positive value in one equation and a negative value in the other equation.</p> <p>Ⓓ The value x represents in Equation 1 is less than the value x represents in Equation 2.</p> <p>Ⓔ The value x represents in Equation 1 is greater than the value x represents in Equation 2.</p>	
2.	<p>Use the information provided to answer Problems 2 and 3.</p> <p>Rebecca and Megan are shopping at a store that sells jewelry, scarves, and purses. The cost of all the items at the store include tax.</p> <p>Rebecca buys some scarves that cost \$5 each and 2 purses that cost \$12 each. The cost of Rebecca's total purchase is \$39. What equation can be used to find n, the number of scarves that Rebecca buys?</p> <p>Ⓐ $5 + 24n = 39$</p> <p>Ⓑ $5n + 24 = 39$</p> <p>Ⓒ $(24 + 5)n = 39$</p> <p>Ⓓ $24 \cdot 5 + n = 39$</p>	
3.	<p>Megan buys 3 bracelets and 3 necklaces. Each bracelet costs \$5. Megan pays the clerk \$40 and gets \$4 change. What is the cost, in dollars, of one necklace?</p>	

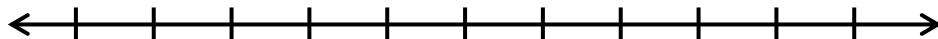
4. A scrapyard had 200 tons of recycled steel. They sold 15 tons per day for several days. If there are fewer than 80 tons left at the scrapyard, how many days, d , have passed?

A. Write an inequality to answer the question.

←	→	↶	↷	✖					
1	2	3	+	-	•	÷			
4	5	6	<	≤	=	≥	>		
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π
0	.	-	d						

B. Solve the inequality.

C. Graph the solution set of the inequality. What does the solution of your inequality mean in terms of the answer to the question?



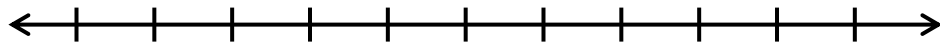
5. When carbon dioxide is frozen, it is called dry ice. In order to keep the carbon dioxide frozen, the temperature has to be -109.3° Fahrenheit or lower. Fahrenheit is $\frac{9}{5}$ of the Celsius temperature plus 32 degrees.


A. Write an inequality to determine the Celsius temperatures, C , at which dry ice can be kept.

← → ↶ ↷ ✖									
1	2	3	+	-	•	÷			
4	5	6	<	≤	=	≥	>		
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π
0	.	-	C						

B. Solve your inequality.

C. Scale the number line below and graph the solution to the inequality.



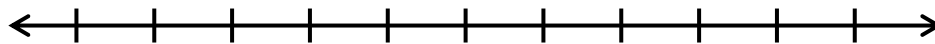
	MAFS.7.EE.2.4-FSA Practice	 A CALCULATOR IS ALLOWED
1.	<p>Devon exercised the same amount of time each day for 5 days last week.</p> <ul style="list-style-type: none">• His exercise included walking and swimming.• Each day he exercised, he walked for 10 minutes.• He exercised for a total of 225 minutes last week. <p>What is the number of minutes Devon swam each of the 5 days last week?</p>	
2.	<p>Jessica rented 1 video game and 3 movies for a total of \$11.50.</p> <ul style="list-style-type: none">• The video game cost \$4.75 to rent.• The movies cost the same amount each to rent. <p>What amount did Jessica pay to rent each movie?</p>	
3.	<p>A. Which of the equations below will answer the following question? Check all that apply.</p> <p>“I think of a number, add 8 and then multiply by 3. My answer is 66. What was my number?”</p> <ul style="list-style-type: none"><input type="checkbox"/> A. $x + 24 = 66$<input type="checkbox"/> B. $3x + 8 = 66$<input type="checkbox"/> C. $3x + 24 = 66$<input type="checkbox"/> D. $3(x + 8) = 66$ <p>B. Find the value of x for the equation(s) for the number described.</p>	

4. Aaron received a \$25 gift card for his birthday. He used it to download a game for \$3.99 and some songs for \$0.99 each.

The following inequality models the relationship among the quantities in this scenario where x represents the number of songs Aaron can afford to download:

$$25 \geq 0.99x + 3.99$$

- A. Show all work to solve the inequality.
- B. Scale the number line below and graph the solution to the inequality. Explain the meaning of your solution within the context of the problem.



5. Jonathan wants to save up enough money so that he can buy a new sports equipment set that includes a football, baseball, soccer ball, and basketball. This complete boxed set costs \$50. Jonathan has \$15 he saved from his birthday. In order to make more money, he plans to wash neighbors' windows. He plans to charge \$3 for each window he washes, and any extra money he makes beyond \$50 he can use to buy the additional accessories that go with the sports box set.

- A. Write inequality that represents the number of windows, w , Jonathan can wash in order to save at least the minimum amount he needs to buy the boxed set.

← → ↶ ↷ ✕

1	2	3	+	-	•	÷			
4	5	6	<	≤	=	≥	>		
7	8	9	$\frac{\square}{\square}$	\square^\square	()		$\sqrt{\square}$	$\sqrt[\square]{\square}$	π
0	.	-	w						

B. Solve the inequality.

C. What is a realistic number of windows for Jonathan to wash? How would that be reflected in the graph?

Write your answer in the space provided.

D. Scale the number line below and graph the solutions to the inequality.

