

**7th GRADE  
AzMERIT  
PRACTICE TEST**

\*\*The AzMERIT practice test is done in grade bands. These questions were pulled from the grades 7-8 practice test. No grade 8 questions are included in this document.

\*\*If you choose to have the students do the online Grade 7-8 practice test, guide them to only complete the question numbers that correspond to this document.

**(7.SP.C.6)**

**2**



Lindsey used a bag of candy to do a probability experiment. In the experiment, she selected one piece of candy at random from the bag, recorded the color, and put the candy back in the bag. She performed this action 12 times and recorded her results in the table shown.

**Probability Experiment**

Candy Color	Number of Times Selected
Green	2
Orange	1
Purple	4
Yellow	5

Based on the results, what is the probability that the next piece of candy Lindsey selects will be a purple candy?

- Ⓐ  $\frac{1}{4}$
- Ⓑ  $\frac{1}{3}$
- Ⓒ  $\frac{1}{2}$
- Ⓓ  $\frac{2}{3}$

**(7.EE.A.1)**

**3**



Factor  $6x - 9$ .

- Ⓐ  $2(3x - 9)$
- Ⓑ  $3(2x - 3)$
- Ⓒ  $3(3x - 2)$
- Ⓓ  $6(x - 9)$

(7.NS.A.2d)

5



Consider a fraction with the following characteristics:

- It represents a repeating decimal.
- The denominator is less than 10.
- It is less than 0.2.

What could this fraction be?

(7.NS.A.2c)

8



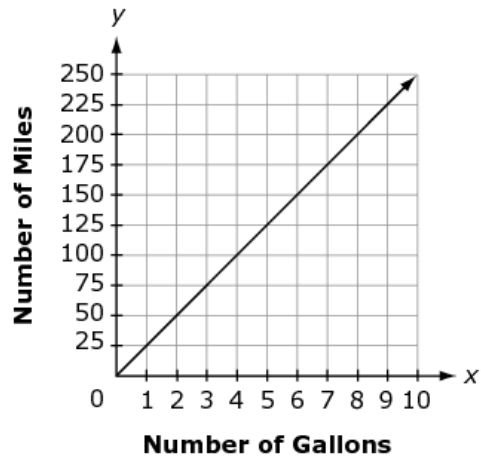
Michelle is building a rectangular landing strip for airplanes.

She has enough material to cover  $\frac{1}{1,500}$  of a square mile. The landing strip must be  $\frac{1}{6}$  of a mile long.

With the amount of material that Michelle has, what is the greatest possible width of the landing strip, in miles?

Igor's car travels 25 miles on a gallon of gas. The car's gas tank has a capacity of 10 gallons. The distance Igor can travel is shown in the graph.

**Distance Igor Can Travel**



Before his trip, Igor stops at a gas station where 10 gallons of gas costs \$41.90. His gas tank is already  $\frac{2}{5}$  full and he spends \$16.76 on gas.

What is the maximum distance, in miles, Igor can travel with the gas he now has in his tank?

← → ↶ ↷ ✖

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

(7.SP.A.2)

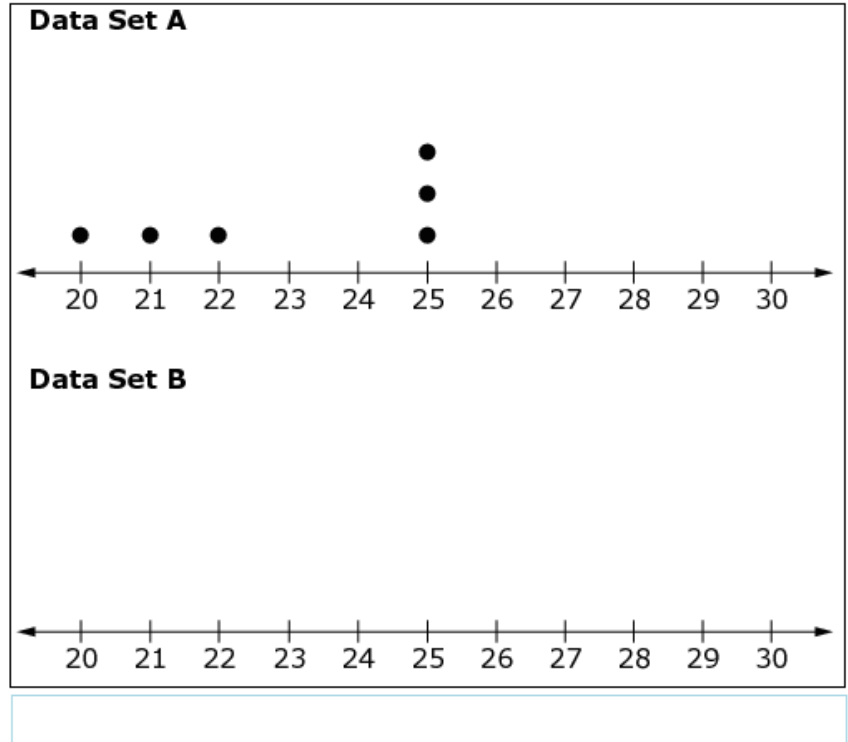
13



Data Set A is shown.

Data Set A and Data Set B have the same mean absolute deviation. Data Set B has 6 elements.

Create Data Set B so that the mean is 2 mean absolute deviations larger than the mean for Data Set A. Click above the number line to create this data set.



(7.NS.A.2a)

14



Drag **one** set of absolute value symbols to the **right** side of each inequality to make the inequality true.

$-4 \times 3 - 5^3 < -4 \times 3 - 5^3$

$-4 \times 3 - 5^3 > -4 \times 3 - 5^3$

(7.RP.A.2c)

15



The table shows the amount of money in Jody's bank account on certain days.

**Jody's Bank Account**

Day ( $d$ )	Amount ( $a$ )
2	\$ 83
5	\$143
7	\$183
11	\$263
15	\$343

Create an equation that models the relationship between the day,  $d$ , and the amount of money,  $a$ , in Jody's bank account.

← → ↶ ↷ ✕

1	2	3	$a$	$d$
4	5	6	+	-
7	8	9	•	÷
0	.	-	<	≤
			=	≥
			>	
			⊞	⊠
			()	
			√	%√
			π	

(7.NS.A.1a)

19



Select one phrase that describes the sum or difference of each expression.

	Greater than zero	Less than zero	Equal to zero
$7 - (-7)$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$7 + (-7)$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$(-7) + (-7)$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$(-7) - 7$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Part A**

A cross section of a right triangular prism is created by a plane that goes through the center of the prism. The plane is also parallel to one of the faces of the prism.

Which statement best describes the cross section?

- Ⓐ The cross section can only be a rectangle.
- Ⓑ The cross section can only be a triangle.
- Ⓒ The cross section can only be a triangle or a rectangle.
- Ⓓ The cross section can never be a triangle or a rectangle.

**Part B**

Select all the statements that describe the cross section.

- The cross section may be a rectangle that is congruent to one of the faces of the prism.
- The cross section may be a rectangle that is smaller than one of the faces of the prism.
- The cross section may be a triangle that is congruent to one of the faces of the prism.
- The cross section may be a triangle that is smaller than one of the faces of the prism.
- The cross section may be a shape that is not a triangle or rectangle that has the same area as one of the faces of the prism.
- The cross section may be a shape that is not a triangle or rectangle that has a smaller area than one of the faces of the prism.