

INDIANA DEPARTMENT OF EDUCATION

Released Items Repository Item Key

ILEARN Mathematics

Grade	Item	DOK	Standard (s)	Key
7	1	1	MA.7.DSP.1 Calculator	A

Select which sample of students the principal should choose.

- A Students randomly selected from a list of all students at the school.
- B Students sitting at randomly selected tables in the library.
- C Students she selects from the hallway between classes.
- D Students selected by the teachers.

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ILEARN Mathematics

Grade	Item	DOK	Standard (s)	Key
7	2	1	MA.7.AF.1 Calculator	See Below

Select **all** expressions that are equivalent to
 $-3.75 + 2(-4x + 6.1) - 3.25x$.

- $7x - 2x + 8.1$
- $8.45 - 8x - 3.25x$
- $-1.75 - 7.25x + 6.1$
- $-11.25x + 12.2 - 3.75$

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Released Items Repository Item Key

ILEARN Mathematics

Grade	Item	DOK	Standard (s)	Key
7	3	1	MA.7.AF.1 Calculator	-13.78

Enter the value of c when the expression $21.2x + c$ is equivalent to $5.3(4x - 2.6)$.

-13.78



1	2	3
4	5	6
7	8	9
0	.	-

INDIANA DEPARTMENT OF EDUCATION

Released Items Repository Item Key

ILEARN Mathematics

Grade	Item	DOK	Standard (s)	Key
7	4	1	MA.7.DSP.5 Calculator	See Below

	True	False
It is impossible that a green marble will be selected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
It is unlikely that a yellow marble will be selected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
It is certain that a blue marble will be selected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
It is unlikely that a red marble will be selected.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

INDIANA DEPARTMENT OF EDUCATION

Released Items Repository Item Key

ILEARN Mathematics

Grade	Item	DOK	Standard (s)	Key
7	5	1	MA.7.GM.3 Calculator	21.75 or 21 3/4

The scale that maps Figure A onto Figure B is $1:7\frac{1}{4}$.
Enter the value of x .

21.75

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4	5	6	<	≤	=	≥	>
7	8	9	$\frac{\square}{\square}$	\square^{\square}	()		π
0	.	-					

INDIANA DEPARTMENT OF EDUCATION

Released Items Repository Item Key

ILEARN Mathematics

Grade	Item	DOK	Standard (s)	Key
7	6	2	MA.7.AF.8 Calculator	See Below

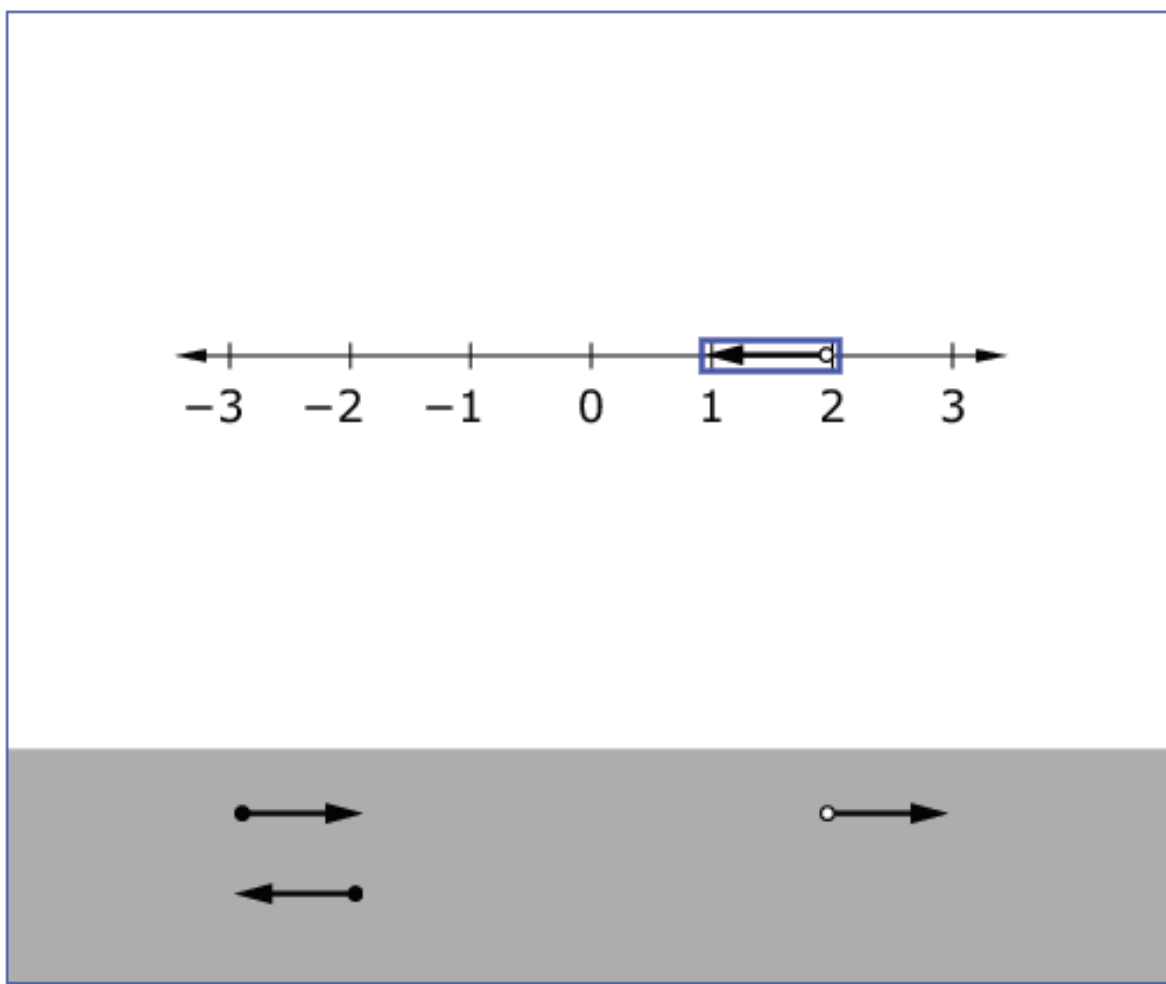
	True	False
The factory uses 4 gallons of water when it is in operation for 4000 hours.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Point <i>W</i> represents the number of gallons of water used when the factory is in operation for 7 hours.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The factory uses 9000 gallons of water when it is in operation for 9 hours.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

INDIANA DEPARTMENT OF EDUCATION

Released Items Repository Item Key

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Grade	Item	DOK	Standard (s)	Key
7	7	2	MA.7.AF.3 Calculator	See Below



INDIANA DEPARTMENT OF EDUCATION

Released Items Repository Item Key

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Grade	Item	DOK	Standard (s)	Key
7	8	2	MA.7.GM.6 Calculator	Part A: 100 Part B: 96

Part A

Part B

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1	2	3
4	5	6
7	8	9
0	.	-

INDIANA DEPARTMENT OF EDUCATION

Released Items Repository Item Key

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Grade	Item	DOK	Standard (s)	Key
7	9	2	MA.7.C.1 and MA.7.C.2 Non-calculator	See Below

Expression	< 0	= 0	> 0
$a - b$			
$a + b$			
$b - c$			
$c - a$			
$a + c$			

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Released Items Repository Item Key

ILEARN Mathematics

Grade	Item	DOK	Standard (s)	Key
7	10	2	MA.7.C.5 Calculator	See Rubric

If Emily's school starts at 8:50 a.m., can Emily make it to school on time without increasing her rate of speed? Show and/or explain the work necessary to support your answer.

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☷
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📄
📄
↶
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ABC
English
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Words 0/4000, # Chars 0/20000

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Grade	Item	DOK	Standard (s)	Key
7	Exemplar and Rubric for Item 10	2	MA.7.C.5	See Below

Sample Exemplar Responses: (3 points)

Exemplar 1: Emily can travel $\frac{3}{4}$ mile in under 5 minutes, so she can travel 3 miles (4x as far) in under 20 minutes (4x as long.) This means that Emily will have traveled 3 miles before 8:45 (20 minutes after she left). Then there is only .42 miles left to go, and since .42 miles is less than $\frac{3}{4}$ mile, we know she can cover that distance in less than 5 minutes. That means she will get to school before 8:50, so she will be on time.

Exemplar 2: Emily travels $\frac{3}{4}$ mile in 4.5 minutes, so to find her rate of travel we would divide time by distance and get $(4.5) / (.75) = 6$ minutes per mile. Multiply 6 minutes per mile times the distance she has to travel (3.42 miles) to find the time it would take for her to get to school (20.52). Since 20.52 is less than 21 minutes, we know it will take her less than 21 minutes to get to school. $8:25 + 21$ minutes is 8:46, which is before 8:50, so she will make it to school on time.

Rubric: (3 points) The student determines that Emily can make it to school on time at her current rate of speed and includes a valid explanation containing a full chain of reasoning that supports this conclusion. The student may make minor computation errors that do not affect the reasonableness of the explanation.

(2 points) The student determines that Emily can make it to school on time at her current rate of speed and includes a valid explanation containing an incomplete chain of reasoning that supports this conclusion. (An incomplete chain of reasoning can be defined by missing process steps or unsupported calculations in an otherwise complete chain of reasoning.)

OR

The student determines that Emily can make it to school on time at her current rate of speed and includes a valid explanation containing a full chain of reasoning that supports this conclusion, but makes computation errors that affect the reasonableness of the explanation.

(1 point) The student completes the task and reaches a conclusion. The student's explanation attempts to relate distance to time, but contains errors in fundamental mathematical procedures.

(0 points) The student demonstrates a lack of comprehension in regard to the mathematical content and practices essential to the task.












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Released Items Repository Item Key

ILEARN Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	1	2	PS.1 Calculator	1 cup is 14 cm tall with explanation

How tall, in cm, is 1 cup? Explain how you determined the height of 1 cup.


B *I* U ~~I_x~~
 
    
ABC 
English 


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Released Items Repository Item Key

ILEARN Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	Rubric for Item 1	2	PS.1	See Below

Rubric:

2 points: Student correctly calculates the height of one cup and provides a mathematically logical explanation as to how he/she calculated the height.

1 point: Student correctly calculates the height of one cup and provides an explanation that is not mathematically logical OR the student **only** calculates the height of a single cup.

0 points: All other responses

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Released Items Repository Item Key

ILEARN Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	Exemplars for Item 1	2	PS.1	See Below

B I U I_x **☰ ☲ ☱ ☴** **✂ ☰ ☱ ↶ ↷** **ABC Ω**

1 cup is 14 cm because if two cups is 16 and 4 cups is 20 then as cups stack 2 cm is added from each cup. To get to 20 from 16 its 4 cm. If only 2 cups are stacked, 16-2 is 14.

SCORE POINT

2

The student states the correct height for one cup and explains his/her method for determining the height.

B I U I_x **☰ ☲ ☱ ☴** **✂ ☰ ☱ ↶ ↷** **ABC Ω**

14 cm. It looks like the top ridge is 2cm. So I subtracted 2 cm from 16cm and 14cm

SCORE POINT

1

The student states the correct height for the cup but does not provide a mathematically logical solution, and instead states, "It looks like the top ridge is 2cm."

B I U I_x **☰ ☲ ☱ ☴** **✂ ☰ ☱ ↶ ↷** **ABC Ω**

8 cm. If two are 16, divide by two to get the size of one.

SCORE POINT

0

Student incorrectly states the height and provides a mathematically incorrect approach for solving the problem.

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Released Items Repository Item Key

ILEARN Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	2	2	MA.7.AF.2 Calculator	$h=2n+12$, or equivalent

Write an equation expressing the relationship between the height of the stack and the number of cups in the stack.

Let h represent the height of the stack, in cm, and n the number of cups in the stack.

$$h=2n+12$$

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7	8	9	<	≤	=	≥	>			
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Released Items Repository Item Key

ILEARN Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	3	2	PS.3 Calculator	See Rubric

The catalog is advertising a stack of these cups that is 95 cm tall. Lori says, "That must be a misprint because a stack of that height is not possible."

Do you agree or disagree with Lori? Explain your reasoning.


B *I* U ~~I_x~~
 
    
 English 


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Released Items Repository Item Key

I^{LEARN} Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	3	2	PS.3	See Rubric

Rubric:

2 points: Student agrees with Lori and provides a valid mathematical explanation as to why a stack of cups could not reach 95 cm. For example, students could attend to the fact that all stacks are an even number of centimeters, or that when they plug in 95 for h to solve for n , it yields a non-whole number.

1 point: Student agrees with Lori, but provides a mathematical explanation that is incomplete.

0 points: Student disagrees with Lori, OR agrees with Lori, but does not offer any explanation for why.

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







Released Items Repository Item Key

ILEARN Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	4	3	PS.4 Calculator	See Rubric

Your class wants to sell School Spirit Cups with the school logo on them. Your teacher asks you to design this new cup such that a stack of 10 cups will be 125 cm tall.

Describe key measurements of the School Spirit Cups and explain how they will meet the required specifications.


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English ▾


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Released Items Repository Item Key

ILEARN Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	Rubric for Item 4	3	PS.4	See Below

Rubric:

2 points: Student describes the key dimensions of the cup (height of cup, height of lip (if necessary)) and explains how 10 cups will reach a height of exactly 125 cm.

1 point: Student describes the key dimensions of the cup (height of cup, height of lip (if necessary)) that would satisfy the constraints, but does not explain how 10 cups will reach a height of exactly 125 cm.

0 points: Student does not describe key dimensions that would satisfy the constraints.

INDIANA DEPARTMENT OF EDUCATION

Released Items Repository Item Key

ILEARN Mathematics Performance Task

Grade	Item	DOK	Standard (s)	Key
7	Exemplars for Item 4	3	PS.4	See Below

B I U I_x | **¶** **≡** **≡** **≡** **≡** | **✂** **📄** **📁** **↶** **↷** **ABC** **Ω**

10 cm lips with 25 cm base is 35 cm tall each

The base of the cup is 25 cm, then 10 x 10cm for the lips will be 100cm for all of the lips. 100 +25 is 125 for the whole stack.

2

SCORE POINT

The student provides the key measurements of the cup (“lips” and “base”) and describes how these dimensions meet the required specifications.

B I U I_x | **¶** **≡** **≡** **≡** **≡** | **✂** **📄** **📁** **↶** **↷** **ABC** **Ω**

To make the cups how Karmin wants them to be, you would make the cups 12.5 cm tall and it would make a stack of 10 at 125cm tall.

1

SCORE POINT

The student partially explains the dimensions but fails to explain how they will meet the required specifications.

B I U I_x | **¶** **≡** **≡** **≡** **≡** | **✂** **📄** **📁** **↶** **↷** **ABC** **Ω**

- must be @ least 15 cm tall, individually
- must be stirofoam
- must be able to be divided by the height to get #

0

SCORE POINT

Student does not describe key dimensions for the height.