

Tennessee Comprehensive Assessment Program

TCAP

TNReady—Math Grade 7 Item Release





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Metadata Interpretation Guide – Math

SAMPLE METADATA TABLE

Label	TN0045532	Max Points	1
Item Grade	8	Rationale1	
Item Content	Math	Rationale2	
Item Type	Choice	Rationale3	
Key	3	Rationale4	
DOK	2	Rationale5	
Difficulty	M	Rationale6	
Calculator	No	Sample Answer	
Ruler	None		
Standard 1 Code	8.NS.A.2	Standard 1	
Standard 2 Code	8.NS.A.2	Standard 2	

METADATA DEFINITIONS

Label: Unique letter/number code used to identify the item.	Max Points: Maximum score points possible for this item.
Item Grade (if listed): Grade level in 3-8 or EOC	Rationale1 (if listed): Reason why this answer choice is correct or incorrect.
Item Content (if listed): Subject being tested. (e.g., ELA, Algebra I, etc.).	Rationale2 (if listed): Reason why this answer choice is correct or incorrect.
Item Type: For example, "Choice" for multiple choice questions, "Match" for matching tables, "Composite" for two-part items.	Rationale3 (if listed): Reason why this answer choice is correct or incorrect.
Key: Correct answer. 1=A, 2=B, etc. This may be blank for constructed response items where students write or type their responses.	Rationale4 (if listed): Reason why this answer choice is correct or incorrect.
DOK (if listed): Depth of Knowledge (cognitive complexity) is measured on a four-point scale. 1=recall; 2=skill/concept; 3=strategic thinking; 4=extended thinking.	Rationale5 (if listed): Reason why this answer choice is correct or incorrect.
Difficulty (if listed): Level of difficulty.	Rationale6 (if listed): Reason why this answer choice is correct or incorrect.
Calculator (if listed): Yes for items that permit calculator use.	Protractor (if listed): Yes for items that permit protractor use.
Ruler (if listed): Yes for items that permit a ruler.	Sample Answer (if listed): An example of an answer a student could provide.
Standard 1 Code (if listed): Content standard assessed.	Standard 1 (if listed): Text of the content standard assessed.
Standard 2 Code (if listed): Content standard assessed. This is the primary code used for the Integrated Math courses.	Standard 2 (if listed): Text of the content standard assessed.

TN220580

Label	TN220580	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	choice	Rationale3	N/A
Key	2	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	No	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.EE.A.2	Standard 1 Text	N/A

Maria needs to determine the lengths of the sides of a rectangle. She knows only the perimeter of the rectangle. She knows the formula for perimeter is $2l + 2w = P$.

Which shows how Maria can rewrite the equation to help her find possible lengths and widths for any rectangle?

- A $l = 2P - w$
- B $l + w = \frac{P}{2}$
- C $l + w = P$
- D $l + w = 2P$

TN020590

Label	TN020590	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	choice	Rationale3	N/A
Key	4	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	No	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.EE.A.2	Standard 1 Text	N/A

Ana needs to find the height of a triangle. She already knows the area of the triangle. She knows that the formula for finding the area of a triangle is $A = \frac{1}{2}b \cdot h$.

Which equation shows how she can rewrite this formula to help her find the height of the triangle?

M $A - \frac{b}{2} = h$

P $h = \frac{A}{2} + \frac{b}{2}$

R $h = \frac{Ab}{2}$

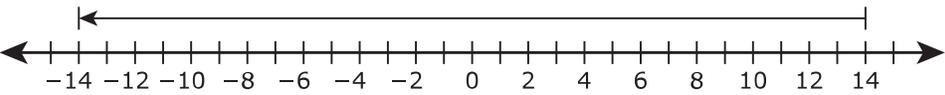
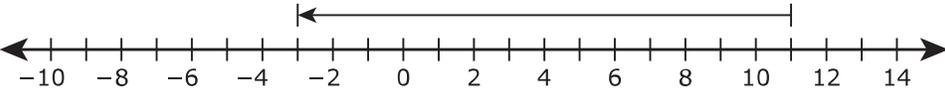
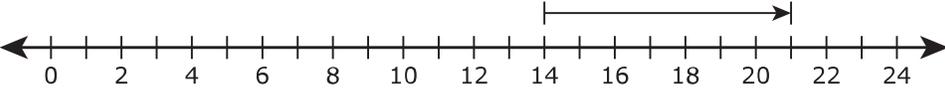
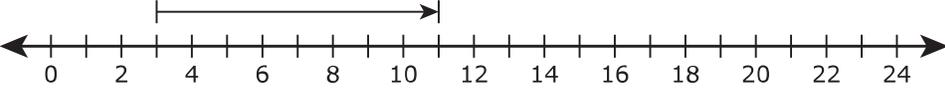
S $\frac{2A}{b} = h$

TN620576

Label	TN620576	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	choice	Rationale3	N/A
Key	2	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	Yes	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.NS.A.1c	Standard 1 Text	N/A

The temperature in Nome, Alaska, dropped 14°F during one day.

Which number line shows this change in temperature?

- A** 
- B** 
- C** 
- D** 

TN420573

Label	TN420573	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	textEntry	Rationale3	N/A
Key	28%	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	Yes	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.RP.A.3	Standard 1 Text	N/A

An item on the sale rack at a local supermarket was marked \$3.42. The original price of the item was \$4.75.

What was the percent of the discount?

TN620569

Label	TN620569	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	match	Rationale3	N/A
Key	D1,C2,A3	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	Yes	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.EE.A.1	Standard 1 Text	N/A

For each expression given in the first column, select an equivalent expression.

	$3x - 10$	$5x - 20$	$8x + 3$	$12x - 3$	$12x - 13$
$4(3x - 2) + 5$					
$\frac{1}{2}(6 - 4x) + 10x$					
$2 + 3(x - 4)$					

TN420550

Label	TN420550	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	choice	Rationale3	N/A
Key	2	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	Yes	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.EE.A.1	Standard 1 Text	N/A

Which expression is equivalent to $\frac{3}{5}(2x - 15) + 2$?

M $\frac{6x - 43}{5}$

P $\frac{6}{5}x - 7$

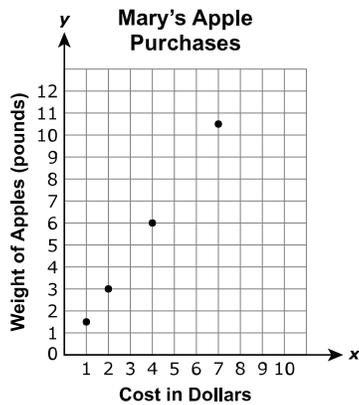
R $\frac{6}{5}x - 13$

S $\frac{6x - 9}{5}$

TN520583

Label	TN520583	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	textEntry	Rationale3	N/A
Key	7.5	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	Yes	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.RP.A.2b	Standard 1 Text	N/A

Mary buys apples at the store. She paid \$1.00, \$2.00, \$4.00, and \$7.00 for apples on four different days. The graph shows the number of pounds Mary got for each amount she paid.



One day Mary paid \$5.00 for apples at the same store.

Using the relationship shown in the graph, how many pounds of apples did Mary buy?

TN920553

Label	TN920553	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	textEntry	Rationale3	N/A
Key	$f=12d$	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	Yes	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.RP.A.2c	Standard 1 Text	N/A

Tamir gets paid \$12 for every day he feeds and walks his neighbor's dog. Write an equation that would represent the relationship between the amount of money Tamir gets paid and the number of days he takes care of the dog.

Use f to represent the total amount of money and d to represent the number of days.

TN220562

Label	TN220562	Max Points	1
Item Grade	07	Rationale1	N/A
Item Content	Math	Rationale2	N/A
Item Type	textEntry	Rationale3	N/A
Key	na	Rationale4	N/A
DOK	2	Rationale5	N/A
Difficulty	N/A	Rationale6	N/A
Calculator	Yes	Sample Answer	N/A
Ruler	None		
Standard 1 Code	7.RP.A.3	Standard 1 Text	N/A

Melissa is buying a sweater. The original cost of the sweater is \$18.00.

The sweater is 15% off, and sales tax is 8%.

How much will the sweater cost?

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