

6th Grade Items

1. Concepts and Procedures

1779

The equation shown has an unknown number.

$$\square \div \frac{2}{3} = \frac{3}{4}$$

Enter a fraction that makes the equation true.

←
→
↶
↷
✖

1	2	3	+	-	*	÷
4	5	6	<	=	>	
7	8	9	$\frac{\square}{\square}$	\square^\square	()	
0	.	-				

Claim__1__

DOK__1__

2. Problem Solving

1855

Carlos needs 1.7 meters of wire for one project and 0.8 meter of wire for another project.

Part A:
Shade the model to represent the total amount of wire Carlos needs. Each full row represents 1.0 meter.

Part B:
Carlos has 2.4 meters of wire. Does Carlos have enough wire?
 • If he does, answer how much wire he will have left over.
 • If he does **not**, answer how much more he needs.

Drag the value into one of the boxes.

0.1
0.2
0.3
0.4
0.5
0.9
1.6
2.5
3.2
4.1

Part A

Each full row = 1.0 meter

Part B

He will have meters of wire left over.

OR

He needs more meters of wire.

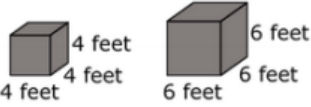
Claim__2__

DOK__2__

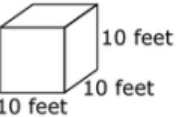
3. Communicates Reasoning

1958

Two shaded cubes are shown.



Ben states that the combined volume of these two shaded cubes is equal to the volume of this cube:



Part A: Select whether Ben's statement is true or false.

Part B: Drag numbers into the box to show the combined volume of the shaded cubes.

0
1
2
3
4
5
6
7
8
9

A. Ben's statement

True False

B. Combined volume

cubic feet

Claim__
3__
DOK__3__

7th Grade Items

4. Communicates Reasoning

1842

Determine whether each statement is true for all cases, true for some cases, or not true for any case.

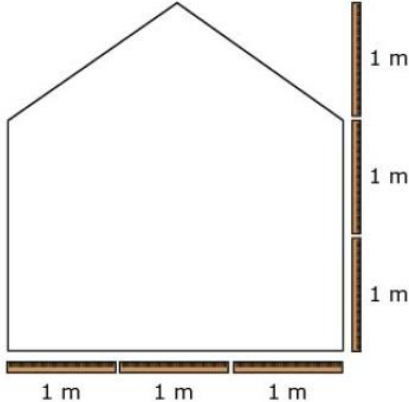
	True for all cases	True for some cases	Not true for any cases
Two vertical angles form a linear pair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If two angles are supplementary and congruent, then they are right angles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The sum of two adjacent angles is 90° .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The measure of an exterior angle of a triangle is greater than every interior angle of the triangle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Claim__3__
DOK__3__

5. Problem Solving

1882

John needs to paint one wall in his school. He knows that 1 can of paint covers an area of 24 square feet. John uses a meter stick to measure the dimensions of the wall as shown.



[1 meter = approximately 39 inches]

What is the **fewest** number of cans of paint John can use to paint the wall?

Claim__2__

DOK__2__

8th Grade Items

6. Concepts and Procedures

1864

Joe solved this linear system correctly.

$$6x + 3y = 6$$

$$y = -2x + 2$$

These are the last two steps of his work.

$$6x - 6x + 6 = 6$$

$$6 = 6$$

Which statement about this linear system must be true?

(A) x must equal 6

(B) y must equal 6

(C) There is no solution to this system.

(D) There are infinitely many solutions to this system.

Claim__1__

DOK__2__

7. Concepts and Procedures

1869
🚩

Delete
Add Point
Connect Line

The school is 100 meters from Jason's house. The following describes his most recent trip:

- He walked 50 meters toward school in 2 minutes. He realized that he left a book at home.
- He turned around and walked home at the same speed.
- He spent 1 minute looking for his book.
- He walked all the way to school at twice his original speed.

Use the Connect Line tool to finish a graph that accurately represents Jason's trip.

Claim__1__

DOK__2__

8.

2042
🚩

Consider this equation.

$$c = ax - bx$$

Joseph claims that if a , b , and c are non-negative integers, then the equation has exactly one solution for x .

Select **all** cases that show Joseph's claim is **incorrect**.

- $a - b = 1, c = 0$
- $a = b, c \neq 0$
- $a = b, c = 0$
- $a - b = 1, c \neq 1$
- $a \neq b, c = 0$

Communicates Reasoning

Claim__3__

DOK__3__

