



**MATH**

Shift: Rigor

Practice(s): Construct viable arguments and critique the reasoning of others.

Domain/level: any

## CCRS Teacher Workout

### Supplying the Answer

**Time needed:** 30-40 minutes

**Goals:**

- Consider how “devaluing the answer” leads to rich mathematical conversations and deeper learning for students.
- Gain comfort with Mathematical Practice 3: *Construct viable arguments and critique the reasoning of others.*

**Materials**

1

What are some ways we could devalue the answer?

A dozen eggs cost \$2.29.  
How much do 7 eggs cost?

Sara Van Der Werf

2

A dozen eggs cost \$2.29.  
How much do 7 eggs cost?

Convince me (and my mom) the cost of 7 eggs is \$1.34.

Sara Van Der Werf

**Introduction**

1. Math Institute presenter 2019 Sara Van Der Werf encouraged participants to “devalue the answer” as a means to encouraging more math conversation in the classroom. Begin with 2 math problems on the board/screen (eggs examples above).
2. Ask your colleagues to read the two ways of asking about egg prices.
3. Discuss:
  - a. What is required to answer each question?
  - b. What math skills are practiced with each?
  - c. Which evokes more discussion, and why?
  - d. Do both questions offer equal access to the math conversation and practice?



**MATH**

Shift: Rigor

Practice(s): Construct viable arguments and critique the reasoning of others.

Domain/level: any

**Practice**

4. Look at the following typical math questions and offer at least one way to “devalue the answer” for each.

*Example:*

You have a rectangle with a length of 8 cm and a width of 2 cm. Find the area.

*Possible “devalued” question:*

You have a rectangle with an area of 16. What could be the dimensions of this rectangle?

What percent of 2100 is 800? (Alternative in word format: Suzanna’s rent is \$800/month, and her monthly income is \$2100. What percent of her income goes to rent?)

*Possible “devalued” question:*

$$2 + 3 + x = 12$$

(If Terri has 2 cookies and Patsy has 3, how many more do they need to make a dozen?)

*Possible “devalued” question:*

**Wrap Up**

5. As a group/partner, identify the connection between having students come up with reasons for a given answer and Mathematical Practice 3.
6. Give teachers time to share how they can use/have used a “supply the answer” strategy in their classrooms.
7. Discuss when it may be most appropriate to use this strategy.