GENERALIZE from EXAMPLES

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We expect students to learn by answering questions. A version of that same approach consists in expecting students to learn from examples.

We tell them, for instance, that 2/5 is:

1) Another way of writing a division: 2 divided by 5.
2) A quantity equal to the quotient of the division.
3) 2 of something called a fifth.
4) A proportion: 2 out of 5.
5) Etc.

We then take it for granted that they can generalize from these examples.

"2/5 is 2 of something called a fifth." They have no difficulty generalizing to "7/8 is 7 of something called an eighth."

Formulating the same knowledge in terms of "numerator" and "denominator" would be difficult to articulate and just as difficult to understand. Trusting students to generalize from examples is better math knowledge than a formulation of the legalistic version.

Various versions of **ASK don't TELL** and trusting students to **GENERALIZE from EXAMPLES** can be applied at all levels of mathematical instruction.