

## Exemplar vs Non Exemplar

Identify which sequence of questions are exemplar for show-calling in whole-class discussion. Why and why not?

- Today is the benchmark day, Miss Walker has to take away all students' electronic devices. She finds out that the ratio of the calculator to the computer is 2 to 5 while the ratio of the calculator to total numbers of electronics is 4:19. How many electronic devices of each type are there?

| Work                                                                                                                                                                                                                                                                                                                                                                            | Sequence of Questions |       |     |   |    |    |            |          |       |   |   |     |   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------|-----|---|----|----|------------|----------|-------|---|---|-----|---|----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>②</p> <table><tr><td>2</td><td>5</td><td>9.5</td></tr><tr><td>4</td><td>10</td><td>19</td></tr></table> <p>③</p> <table><tr><th>Calculator</th><th>Computer</th><th>Total</th></tr><tr><td>2</td><td>5</td><td>9.5</td></tr><tr><td>4</td><td>10</td><td>19</td></tr></table> <p>Computers: 10<br/>Calculator: 4<br/>Total: 19<br/>Scaling factor: <math>\times 2</math></p> | 2                     | 5     | 9.5 | 4 | 10 | 19 | Calculator | Computer | Total | 2 | 5 | 9.5 | 4 | 10 | 19 | <p>Show-calling work #2</p> <ul style="list-style-type: none"><li>• What did this scholar do?</li><li>• What model is this?</li><li>• How did the model help the scholar solve the problem?</li><li>• What can be better about this model?</li></ul> <p>Show-calling work #3</p> <ul style="list-style-type: none"><li>• What did this scholar do? (Use a table to find equivalent ratio)</li><li>• What model is this? (Ratio table because this is a ratio problem)</li><li>• How did the model help the scholar solve the problem? (they put the 2 in the calculator, 5 in computer)</li><li>• Why? (Because the ratio of the calculator to the computer is 2 to 5)</li><li>• Someone explain the second set of ratio for me and where it comes from (the ratio of the calculator to total numbers of electronics is 4:19)</li><li>• How did they find the missing calculators? (They identify the scaling factor as 2 because <math>2 \times 2</math> is 4. The they know ratio is constant so the scaling factor of computer must also be 2, so <math>5 \times 2 = 10</math>)</li><li>• What did you notice about the way this scholar organize their</li></ul> |
| 2                                                                                                                                                                                                                                                                                                                                                                               | 5                     | 9.5   |     |   |    |    |            |          |       |   |   |     |   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 4                                                                                                                                                                                                                                                                                                                                                                               | 10                    | 19    |     |   |    |    |            |          |       |   |   |     |   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Calculator                                                                                                                                                                                                                                                                                                                                                                      | Computer              | Total |     |   |    |    |            |          |       |   |   |     |   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2                                                                                                                                                                                                                                                                                                                                                                               | 5                     | 9.5   |     |   |    |    |            |          |       |   |   |     |   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 4                                                                                                                                                                                                                                                                                                                                                                               | 10                    | 19    |     |   |    |    |            |          |       |   |   |     |   |    |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|  | work? (They label all quantities and have their work organized neatly. They also have a sentence to answer the question) |
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