

Problem-Solving Decisions: Explain Your Solution

1. Adam writes a song that has a drum beat every 12 seconds and a hand-clap every 15 seconds. The song is five minutes long. How many times do the drum beat and hand-clap overlap? Explain your answer.

UNDERSTAND

How can you use your own words to restate the problem?

PLAN

Why is the length of the song important?

Will finding the greatest common factor of 12 and 15 help you answer this question? Why or why not?

Will finding the least common multiple help? Why or why not?

SOLVE

Why is this a two-step problem? What is your second step?

LOOK BACK

Notice that the problem asks you to explain your answer. Your explanation should tell how you found your solution.

2. Luisa wants to find the greatest common factor of 90 and 126. She uses mental math to find that both numbers are divisible by 3. Why is her answer of 3 incorrect?
