Modular Arithmetic Exploration Questions

Clocks can be used to explain modular arithmetic. Answer the following questions, using the activity to check your work:

1. What is 22 mod 12? 22 mod 10?

2. What is 54 mod 6? 54 mod 9? 54 mod 17?

3. What is 8 mod 22? 8 mod 3? 8 mod 5?

4. What is 15 mod 31? 15 mod 3? 15 mod 5?

5. Can you find two different numbers that fit in this blank to make the statement true:

   78 mod ___ = 6

6. How does division relate to this activity?