

## Grade 5 -Connecting the Standards for Mathematical Practices to Instructional Tasks

### Task:

- Complete the problem shown below.
- Share your approach and outcome to the problem with the members of your group.
- Identify the standards to which this problem has connections.
- Discuss how this problem might be used within a lesson that targets the identified standards. (motivation, review, enrichment,...)
- Identify the Standards for Mathematical Practice to which this problem has connections
- Discuss how using this problem might help students to become more proficient with the identified Standards for Mathematical Practice.

Ryan has just installed a new lock on his school locker. He must create a secret six-digit personal lock combination. He decides to use the six digits in his father's date of birth: 05-24-76. It is very important to Ryan that no one else discover his locker combination so he decides to rearrange the digits in a six-digit number that no one is likely to guess. After much thought, Ryan decides to rearrange the numerals so that from the left-

- The first digit is the largest of all the digits;
- The number formed by the first two digits is divisible by 2;
- The number formed by the first three digits is divisible by 3;
- The number formed by the first four digits is divisible by 4;
- The number formed by the first five digits is divisible by 5; and
- The entire six-digit number is divisible by 6.

Ryan needs your help in creating a six-digit number that meets all of these conditions. Create a locker combination for Ryan using the six digits in his father's date of birth.

### *Work*

<b>Solution</b>	
<b>Content Standards</b>	
<b>Rationale for the selection</b>	
<b>How might this problem be used in a lesson?</b>	
<b>Standards for Mathematical Practice</b>	
<b>Rationale for the selection</b>	