

### Factors, Multiples and Prime Factorization Choice Board

<u>Answer</u>	Word Problem	Find the Error	Create
# of days it takes for the moon to make a full revolution (28)	Davis and Luisa both work at Tommy's Pizzeria throughout the week. They earn the same amount of money per day. If Davis made \$252 and Luisa made \$224 this week, how much money do they make per day. Please use <u>prime factorization</u> to show your solution.	Hector is trying to find the prime factorization of 840.  He writes the prime factorization of 840 as $2 \cdot 3 \cdot 5 \cdot 23$ .  Is Hector's answer correct or not? Explain what Hector could have done to check his work. Show the correction he needs to make.	a) Create a word problem with this answer that uses either division or prime factorization to get to the answer. b) Create a word problem that uses the answer in the prime factorization.  Show the solution to the word problem.
# of days in a leap year (366)	On Sundays, The A train arrives at the 125 <sup>th</sup> Street station every 16 minutes. The D train arrives every 21 minutes. How many minutes will elapse before the trains arrive at train station at the same time? It is 12:30 pm now and both trains are at the station, at what time will the trains meet again?	There is a star with four orbiting planets. One planet makes a trip around the star in 7 Earth years, the second planets takes 6 Earth years, the third takes 16 Earth years, and the fourth takes 21 Earth years. How many years, will it take for the planets to return to this position?  Deena states that it will take 14,112 years. Explain how Deena found her answer and how she can solve it correctly.	a) Create a word problem with this answer that uses multiplication and/or finding common multiples to get to the answer.  Show the solution to the word problem.
# of days in a regular week (7)	Djali has 42 Snickers bars and 63 Three Musketeers bars. If she wants to make Halloween grab bags, what is the greatest amount of grab bags she can make if she must have exactly the same number of Snickers and exactly the same number of Musketeers in each bag? Please <u>diagram</u> your solution.	Neena has 21 smiley-face stickers, 54 glittery stickers and 84 heart stickers. Elaine states that Neena can only divide the stickers evenly among 3 friends. Create a diagram that shows how Elaine solved this problem and explain whether she is correct or not.	a) Create a word problem with this answer that uses division and/or finding common factors to get to the answer.  Show the solution to the word problem.