# The Factor Game

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|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
| 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |

**Game Rules**: You and your partner will have a different colored crayon or colored pencil. The first move is granted to the person wearing the lightest colored shirt.

**STEP 1**: Partner A will use their color and color any number 1-56.

**STEP 2**: Partner B will then color in all the factors for the number that Partner A just colored in.

**STEP 3**: Once Partner B has colored in all factors, Partner B will color in any number 1-56, just like Partner A did in the beginning of the game.

**STEP 4**: Now it is Partner A's turn to color in all the factors for the number that Partner B filled in. Continue the steps until the entire number chart is colored in.

**STEP 5**: Go back to your number chart and count how many prime numbers you have. You earn 2 points for each prime number you colored in.

**STEP 6**: Answer the questions on the back of this page.

****IMPORTANT: If a number is already colored in, you cannot color that box and you lose that number.**

# The Factor Game

1. List ALL of your composite numbers on the lines below.

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_____

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*****Extend your learning*****

Long ago, people observed the sun rising and setting over and over at about equal intervals. They decided to use the amount of time between two sunrises as the length of a day. They divided the day into 24 hours. Use what you know about factors to answer these questions:

2. Why is 24 a more convenient choice than 23 or 25?

_____

_____

_____

3. If you were to select a number different from 24 to represent the hours in a day, what number would you choose? Why?

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