

Factors & Multiples

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

Definition Factor & Multiple *If a and b are whole numbers and $a \neq 0$, then a is a factor of b if and only if there is a whole number c such that $ac = b$. We can say that a divides b is a multiple of a .*

1. For each sentence below, decide if it makes sense. If it makes sense provide some brief justification, if not, create a sentence with the numbers given that does make sense.

(a) The number 6 is a multiple of 24.

(b) The number 8 divides 16.

(c) The numbers 10 and 25 are factors of 5.

(d) There are an infinite number of multiples of 10.

(e) There are an infinite number of factors of 10.

2. Find three factors of 20, if possible.

3. If n divides a and b , does n divide $(a + b)$? Why or why not?

4. If n divides a and k is some whole number, does n divide ka ?