

Name _____

Date _____

1. Explain your thinking or use division to answer the following.

a. Is 2 a factor of 72?	b. Is 2 a factor of 73?
c. Is 3 a factor of 72?	d. Is 2 a factor of 60?
e. Is 6 a factor of 72?	f. Is 4 a factor of 60?
g. Is 5 a factor of 72?	h. Is 8 a factor of 60?

2. Use the associative property to find more factors of 12 and 30.

a. $12 = 6 \times 2$

$$= (\underline{\quad} \times 2) \times 2$$

$$= \underline{\quad} \times (2 \times 2)$$

$$= \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad}$$

b. $30 = \underline{\quad} \times 5$

$$= (\underline{\quad} \times 3) \times 5$$

$$= \underline{\quad} \times (3 \times 5)$$

$$= \underline{\quad} \times 15$$

$$= \underline{\quad}$$

3. In class, we used the associative property to show that when 6 is a factor, then 2 and 3 are factors, because $6 = 2 \times 3$. Use the fact that $10 = 5 \times 2$ to show that 2 and 5 are factors of 70, 80, and 90.

$$70 = 10 \times 7$$

$$80 = 10 \times 8$$

$$90 = 10 \times 9$$

4. The first statement is false. The second statement is true. Explain why, using words, pictures, or numbers.

If a number has 2 and 6 as factors, then it has 12 as a factor.

If a number has 12 as a factor, then both 2 and 6 are factors.

Answer Key

1. Explanations may vary.
 - a. Yes
 - b. No
 - c. Yes
 - d. Yes
 - e. Yes
 - f. Yes
 - g. No
 - h. No
2.
 - a. 3; 3; 3; 4; 12
 - b. 6; 2; 2; 2; 30
3.
$$(5 \times 2) \times 7 = 5 \times (2 \times 7) = 5 \times 14 = 70$$
$$(5 \times 2) \times 8 = 5 \times (2 \times 8) = 5 \times 16 = 80$$
$$(5 \times 2) \times 9 = 5 \times (2 \times 9) = 5 \times 18 = 90$$
4. Explanations may vary.