

Name _____

Prime Factorization, GCF, and LCM

Tell whether the number is prime or composite. If it is composite, write its prime factorization.

1. 46

2. 61

3. 48

Find the greatest common factor.

4. 12, 42

5. 16, 25

6. $56x$, $84x^2$

Write the fraction in simplest form (lowest terms).

7. $\frac{18}{48}$

8. $\frac{32ab^3}{8a^2b}$

Find the least common multiple.

9. 4, 11

10. 15, 45

11. 30, 54

Answer the following:

12. Are 56 and 75 relatively prime? Why or why not?

Prime Factorization, GCF, and LCM Answers

Tell whether the number is prime or composite. If it is composite, write its prime factorization.

1. 46 **Composite: $46 = 2 \times 23$**

2. 61 **Prime**

3. 48 **Composite: $48 = 2^4 \times 3$**

Find the greatest common factor.

4. 12, 42 **6**

5. 16, 25 **1**

6. $56x, 84x^2$ **$28x$**

Write the fraction in simplest form (lowest terms).

7. $\frac{18}{48}$ **$\frac{3}{8}$**

8. $\frac{32ab^3}{8a^2b}$ **$\frac{4b^2}{a}$**

Find the least common multiple.

9. 4, 11 **44**

10. 15, 45 **45**

11. 30, 54 **270**

Answer the following:

12. Are 56 and 75 relatively prime? Why or why not? **Yes, the GCF of 56 and 75 is 1.**