

Name: _____

Grade: _____

Date: _____

Topic: Finding the HCF and LCM using Prime Factorization

Instructions: Find the HCF and LCM using prime factorization. For the factor tree, start with the smallest prime number that can be used. When listing prime factors, list the prime factors in **ascending order**.

(1)

18



$$18 = \underline{\quad \times \quad \times \quad}$$

$$27 = \underline{\quad \times \quad \times \quad}$$

$$\text{HCF} = \underline{\quad \quad \quad}$$

$$\text{LCM} = \underline{\quad \quad \quad}$$

27



(2) 20



$$20 = \underline{\quad \times \quad \times \quad}$$

$$30 = \underline{\quad \times \quad \times \quad}$$

$$\text{HCF} = \underline{\quad \quad \quad}$$

$$\text{LCM} = \underline{\quad \quad \quad}$$

30



(3)

24



$$24 = \underline{\quad \times \quad \times \quad \times \quad}$$

$$36 = \underline{\quad \times \quad \times \quad \times \quad}$$

$$\text{HCF} = \underline{\quad \quad \quad}$$

$$\text{LCM} = \underline{\quad \quad \quad}$$

36



(4) 50



$$50 = \underline{\quad \times \quad \times \quad}$$

$$75 = \underline{\quad \times \quad \times \quad}$$

$$\text{HCF} = \underline{\quad \quad \quad}$$

$$\text{LCM} = \underline{\quad \quad \quad}$$

75



(5)

40



$$40 = \underline{\quad \times \quad \times \quad \times \quad}$$

$$60 = \underline{\quad \times \quad \times \quad \times \quad}$$

$$\text{HCF} = \underline{\quad \quad \quad}$$

$$\text{LCM} = \underline{\quad \quad \quad}$$

60



(6) 21



24



56



$$21 = \underline{\quad \times \quad}$$

$$24 = \underline{\quad \times \quad \times \quad \times \quad}$$

$$56 = \underline{\quad \times \quad \times \quad \times \quad}$$

$$\text{HCF} = \underline{\quad \quad \quad}$$

$$\text{LCM} = \underline{\quad \quad \quad}$$