

Name _____

Date _____



GREATEST COMMON FACTOR SHEET 3B

For each problem below, write out the lists of factors to find the GCF.

1) Find the greatest common factor of 22 and 44.

Prime Factorization of 22: _____

Prime Factorization of 44: _____

The greatest common factor is _____.

2) Find the highest common factor of 45 and 27.

Prime Factorization of 45: _____

Prime Factorization of 27: _____

The highest common factor is _____.

3) Find the greatest common factor of 42 and 35.

Prime Factorization of 42: _____

Prime Factorization of 35: _____

The greatest common factor is _____.

4) Find the highest common factor of 50 and 21.

Prime Factorization of 50: _____

Prime Factorization of 21: _____

The highest common factor is _____.

5) Find the greatest common divisor of 51 and 42.

Prime Factorization of 51: _____

Prime Factorization of 42: _____

The greatest common divisor is _____.

Note: the highest common factor and the greatest common divisor mean the same as the greatest common factor.



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GREATEST COMMON FACTOR SHEET 3B ANSWERS

1) Find the greatest common factor of 22 and 44.

Prime Factorization of 22: 2×11 *Prime Factorization of 44:* $2 \times 2 \times 11$

The greatest common factor is $2 \times 11 = 22$.

2) Find the highest common factor of 45 and 27.

Prime Factorization of 45: $3 \times 3 \times 5$ *Prime Factorization of 27:* $3 \times 3 \times 3$

The highest common factor is $3 \times 3 = 9$.

3) Find the greatest common factor of 42 and 35.

Prime Factorization of 42: $2 \times 3 \times 7$ *Prime Factorization of 35:* 5×7

The greatest common factor is 7.

4) Find the highest common factor of 50 and 21.

Prime Factorization of 50: $2 \times 5 \times 5$ *Prime Factorization of 21:* 3×7

The highest common factor is 1.

5) Find the greatest common divisor of 51 and 42.

Prime Factorization of 51: 3×17 *Prime Factorization of 42:* $2 \times 3 \times 7$

The greatest common divisor is 3.