Finding Greatest Common Factor

Name: _____

Determine the greatest common factor (GCF) of each set of numbers.

> To find the GCF of 12 & 16, first write down the factors of each number.
>
> Factors of 12   1 , 2 , 3 , 4 , 6 , 12
>
> Factors of 16   1 , 2 , 4 , 8 , 16
>
> 2 & 4 are factors both 12 and 16 have in common, with 4 being the greatest. So 4 is the GCF.

1) 33 , 24

Factors of 33   ____ , ____ , ____ , ____

Factors of 24   ____ , ____ , ____ , ____ , ____ , ____ , ____ , ____

2) 6 , 33

Factors of 6   ____ , ____ , ____ , ____

Factors of 33   ____ , ____ , ____ , ____

3) 33 , 8

Factors of 33   ____ , ____ , ____ , ____

Factors of 8   ____ , ____ , ____ , ____

4) 16 , 12

Factors of 16   ____ , ____ , ____ , ____ , ____

Factors of 12   ____ , ____ , ____ , ____ , ____ , ____

5) 24 , 14

Factors of 24   ____ , ____ , ____ , ____ , ____ , ____ , ____ , ____

Factors of 14   ____ , ____ , ____ , ____

6) 28 , 22

Factors of 28   ____ , ____ , ____ , ____ , ____ , ____

Factors of 22   ____ , ____ , ____ , ____

7) 12 , 6

Factors of 12   ____ , ____ , ____ , ____ , ____ , ____

Factors of 6   ____ , ____ , ____ , ____

8) 30 , 12

Factors of 30   ____ , ____ , ____ , ____ , ____ , ____ , ____ , ____

Factors of 12   ____ , ____ , ____ , ____ , ____ , ____

9) 21 , 39

Factors of 21   ____ , ____ , ____ , ____

Factors of 39   ____ , ____ , ____ , ____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

Answer Key

Determine the greatest common factor (GCF) of each set of numbers.

To find the GCF of 12 & 16, first write down the factors of each number.

Factors of 12   1 , 2 , 3 , 4 , 6 , 12

Factors of 16   1 , 2 , 4 , 8 , 16

2 & 4 are factors both 12 and 16 have in common, with 4 being the greatest. So 4 is the GCF.

Answers

1. **3**

2. **3**

3. **1**

4. **4**

5. **2**

6. **2**

7. **6**

8. **6**

9. **3**

1) 33 , 24

Factors of 33   1 , 3 , 11 , 33

Factors of 24   1 , 2 , 3 , 4 , 6 , 8 , 12 , 24

2) 6 , 33

Factors of 6   1 , 2 , 3 , 6

Factors of 33   1 , 3 , 11 , 33

3) 33 , 8

Factors of 33   1 , 3 , 11 , 33

Factors of 8   1 , 2 , 4 , 8

4) 16 , 12

Factors of 16   1 , 2 , 4 , 8 , 16

Factors of 12   1 , 2 , 3 , 4 , 6 , 12

5) 24 , 14

Factors of 24   1 , 2 , 3 , 4 , 6 , 8 , 12 , 24

Factors of 14   1 , 2 , 7 , 14

6) 28 , 22

Factors of 28   1 , 2 , 4 , 7 , 14 , 28

Factors of 22   1 , 2 , 11 , 22

7) 12 , 6

Factors of 12   1 , 2 , 3 , 4 , 6 , 12

Factors of 6   1 , 2 , 3 , 6

8) 30 , 12

Factors of 30   1 , 2 , 3 , 5 , 6 , 10 , 15 , 30

Factors of 12   1 , 2 , 3 , 4 , 6 , 12

9) 21 , 39

Factors of 21   1 , 3 , 7 , 21

Factors of 39   1 , 3 , 13 , 39

1-9	89	78	67	56	44	33	22	11	0