

Math 4.
Homework #6.



1. Present each number as a product of prime factors (prime factorization):

a). 96

b). 72

c). 216

d). 280

e). 365

2. In some remote village, many years ago villagers tamed dragons. They even started to breed them. Somehow, on a weekend day or a holiday 2 less eggs hatching than on a week day. How many dragons have been hatching on a week day and on a weekend day if within one full week 80 dragons were added to the dragon flock? *Write an appropriate equation to solve this problem!*

3. Find LCM and GCF of ...

a). 15 and 12

b). 10 and 40; show these using Venn Diagrams

c). 27 and 15;

d). 16 and 25 - show these using Venn Diagrams

4. Two bells ring together at 10:45 A.M. One bell rings every 9 minutes and the other every 12 minutes. When will they next ring together?

5. Compute by the most convenient way:

a. $4 \cdot 23 =$

b. $17 \cdot 15 =$

c. $12 \cdot 87 + 35 \cdot 13 + 87 \cdot 23 =$

d. $41 \cdot 80 - 25 \cdot 41 + 55 \cdot 29 =$

6. Two buses leave from the same bus station following two different routes. For the first one it takes 48 minutes to complete the roundtrip route. For the second one it takes 1 hour and 12 minutes to complete the round trip route. How much time will it take for the buses to meet at the bus station for the first time after they have departed for their routes at the same time?

7. Mary has a rectangular backyard with sides of 48 and 40 yards. She wants to create square flower beds and plant different kind of flowers in each flower bed. What is the largest possible size of one flower bed square if she makes all squares equal?



8. Plot points on the plane of coordinates: $A(-1, 8)$, $B(6,1)$, $C(6,6)$, and $D(-6,-2)$. Draw segments AB and CD and find coordinates of the point F which marks the intersection of segments AB and CD . (*use graphing paper and attach it to this homework*)

9. A florist has 36 roses, 90 lilies, and 60 daisies. What is largest amount of bouquets she can create from these flowers evenly dividing each kind of flowers between the bouquets?



10. On a number line we marked numbers A , B , C , D . Can numbers A , B , C , D be prime numbers if number P is a prime number? Explain you answer. Can three consecutive numbers be prime numbers?

