

Math 4. Homework #7. Assigned on November 4, 2018.



1. Write the following numbers as products of their prime factors:

- a). 1001 b). 2002 c). 24024 (divisible by 24)

2. Find the LCM (Least Common Multiple) and GCF (Greatest Common Divisor) of the following numbers ...

- a). 9 and 12 b). 16 and 12 c). 24 and 8 d). 28 and 30

3. In my class I will be giving quizzes several times a year. Each time I will include 12 questions on a quiz. Another teacher will be including 15 questions on each quiz in her class, but by the end of the year my and her students will all have the same number of questions. What is the **least** possible number of questions you and the other students will have to answer by the end of the year?

4. **Simplify the expression:**

$$5x + 12 - 2x + 7y + 6xy + 720 - y =$$

5. Set $A = \{c, 5, 8, d, 14\}$, set $B = \{f, 6, 5, g, 81\}$

Write the set $C = A \cap B$, and the set $D = A \cup B$

Show on Venn's Diagram

6. Review of LCM and GCF and Venn Diagrams

- a) Show Venn Diagram of prime factors for 1024 and 512
- b) Write a set A of prime factors for 1024
- c) Write a set B of prime factors for 512
- d) Write the set $C = A \cap B$
- e) Write the set $D = A \cup B$
- f) Determine GCF (1024, 512) and LCM (1024, 512)

7. The perimeter of a rectangle is 66cm. The length of one of its sides is $\frac{3}{11}$ of the perimeter. Find the area of this rectangle. (The perimeter of any polygon is the sum of the lengths of all the sides.)

8. Compare fractions without calculations

a. $\frac{9}{25} \square \frac{8}{25}$

c. $\frac{111}{53} \square \frac{79}{84}$

b. $\frac{5}{19} \square \frac{5}{12}$

d. $\frac{44}{45} \square \frac{45}{46}$

e. $\frac{9}{43} \square \frac{18}{86}$

f. $\frac{31}{231} \square \frac{31}{344}$

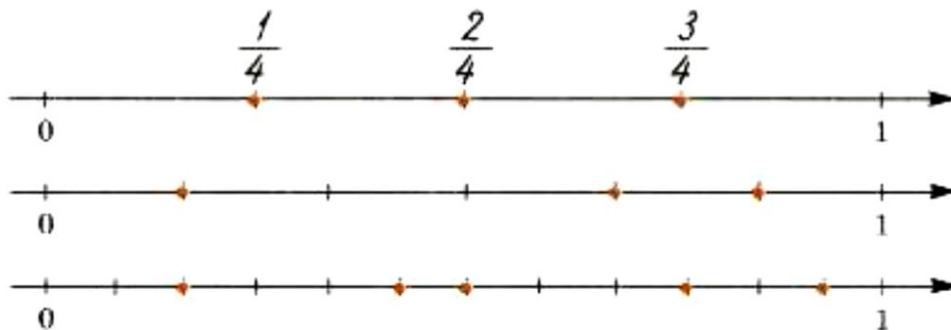
9. Solve the following equations:

a) $\frac{1}{3} + z = \frac{2}{3}$

b) $\frac{3}{4} + y = 1$

c) $\frac{5}{7} - x = \frac{4}{7}$

10. On the picture below, put the corresponding fractions above each marked point:



11. There are 80 penguins in a zoo and $\frac{3}{4}$ of them love tuna. While 47 penguins love red tuna, only 42 love yellow tuna. How many penguins love both kinds of tuna?

