

Math 4d, Homework 4.



1. Can you say which of the following statements are true and which are false?
 - a. If the natural number is divisible by 4 and 3, it's divisible by 12
 - b. If the natural number is divisible by 12, it's divisible by 3 and 4.
 - c. If the natural number is divisible by 9, it's divisible by 3.
 - d. If the natural number is divisible by 3, it's divisible by 9.
2. Even or odd number will be the sum
3. Even or odd number are the following products, why do you think so?

a) $11 \cdot 13 \cdot 15 \cdot 17 \cdot 19$;

b) $11 \cdot 12 \cdot 13$;

4. Even or odd number are the following sums:

a. $11 + 13 + 15 + 17 + 19 + 21 + 23 + 25 + 27 + 29$;

b. $11 + 15 + 19 + 23 + 27 + 31 + 25$;

c. $1 + 2 + 3 + \dots + 2020$

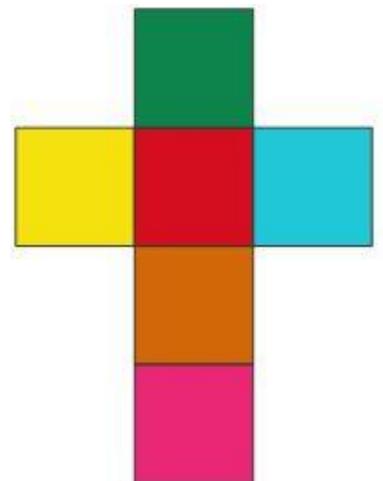
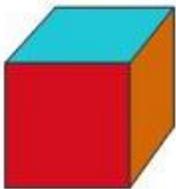
5. Set A is the set of numbers
 $A = \{372, 405, 700, 1075, 4399\}$

Find subsets of the set A

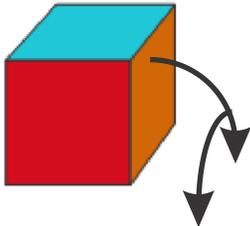
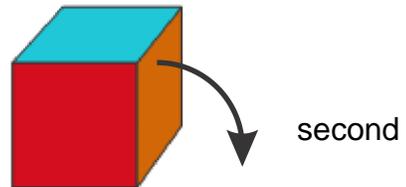
- a. Multiples of 2
 - b. Multiples of 3
 - c. Multiples of 5
6. 25 identical thick books or 45 identical thin books can fit on a bookshelf. Will there be enough space on a bookshelf for 20 thick and 9 thin books?

7. On a picture on the right there is a surface of a cub. What do you think about the color of bottom side of this cub?

If you turn this cube ones following the arrow, what color of the upper side will be?



If you turn this cube one more time following the arrow, what color of the upper side will be?



8. Fill the empty spaces in the table below:

a	56		36		72
b	8	6		5	
$a \cdot b$		108	144		
$a : b$				14	24