



# MATHS

## BOOKS - INDEPENDENTLY PUBLISHED

### MATHS (ENGLISH)

#### COUNTING

#### Examples

1. A certain sports club has 50 members .Of these , 35 golf , 30 hunt , and 18 do both . How

many club members do neither ?



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2. Among the seniors at a small high school , 80 take math , 41 take spanish and 54 take physics .Ten seniors take math and spanish , 19 take math and physics , and 12 take physics and spanish . Seven seniors take all three .How many seniors take math take math but not spanish or physics ?



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3. Suppose you have 5 shirts , 4 pairs of pants , and 9 ties .How many outfits can be made consisting of a shirt , a pair of pants , and a tie ?



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4. Six very good friends decide they will have lunch together every day . In how many different ways can they line up in the line ?



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5. The math team at East High has 20 members .They want to choose a president , vice president, and treasurer . In how many ways can this be done ?



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6. The student council at west high has 20 members .They want to select a committee of to work with the school administration on

policy matters affecting students directly .How many committees of 3 students are possible ?



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## Exercise

1. There are 50 people in a room ,Twenty -eight are male ,and 32 are under the age of 30  
Twelve are males under the age of 30 ,How woman over the age of 30 are in the group ?

A. 2

B. 3

C. 4

D. 5

**Answer: A**



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2. A student has 8 shirts , 5 pairs of pants , and 3 pairs of shoes , how many outfits consisting

of a shirt , pair of pants , and pair of shoes  
can this student form ?

A. 16

B. 120

C. 560

D. 4096

**Answer: B**



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3. M & M plan candies in six colors : brown , green orange , red blue , and yellow assume there are at least 3 of each color . If you pick three candies from a bag , how many color possibilities are there ?

A. 18

B. 20

C. 120

D. 216

**Answer: D**





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4. A code consists of two letters of the alphabet followed by 5 digits .How many such codes are possible ?

A. 7

B. 10

C. 128

D. 67, 600, 000

**Answer: D**



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5. A salad bar has 7 ingredients , excluding the dressing .How many different salads are possible where two salads are different if they don't include identical ingredients ?

A. 7

B. 14

C. 128

D. 5, 040

**Answer: C**



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**6.** How many 3 - person committees can be selected from a fraternity with 25 members?

A. 15625

B. 13800

C. 2300

D. 75

**Answer: C**



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7. A basketball team has 5 centers, 9 guards and 13 forwards. Of these, 1 center, 2 guards, and 2 forwards start a game. How many possible starting teams can a coach put on the floor?

A. 56160

B. 14040

C. 585

D. 197

**Answer: B**



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**8.** Five boys and 6 girls would like to serve on the homecoming court , which will consist of 2 boys and 2 girls.How many different homecoming courts are possible ?

A. 30

B. 61

C. 150

D. 900

**Answer: C**



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**9.** In a plane there are 8 points , no three of which are collinear .How many lines do the points determine ?

A. 7

B. 16

C. 28

D. 36

**Answer: C**



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10. If  $\begin{pmatrix} 6 \\ x \end{pmatrix} = \begin{pmatrix} 4 \\ x \end{pmatrix}$ , then  $x =$

A. 0

B. 1

C. 4

D. 5

**Answer: A**



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