

تم تحميل هذا الملف من موقع المناهج الإماراتية



## حل مراجعة الدرسين الأول والثاني من الوحدة الثامنة Inferential statistics ريفيل منهج

موقع المناهج ← المناهج الإماراتية ← الصف الحادي عشر المتقدم ← رياضيات ← الفصل الأول ← حلول ← الملف

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المزيد من مادة  
رياضيات:

إعداد: محمد زياد

### التواصل الاجتماعي بحسب الصف الحادي عشر المتقدم



الرياضيات



اللغة الانجليزية



اللغة العربية



التربية الاسلامية



المواد على تلغرام

صفحة المناهج  
الإماراتية على  
فيسبوك

### المزيد من الملفات بحسب الصف الحادي عشر المتقدم والمادة رياضيات في الفصل الأول

حل مراجعة الدروس الرابع والخامس والسادس من الوحدة السابعة Functions Rational منهج ريفيل

1

حل مراجعة الدرسين الثاني والثالث من الوحدة السابعة Functions Rational منهج ريفيل

2

حل مراجعة الدرس الأول من الوحدة السابعة Functions Rational منهج ريفيل

3

أسئلة الاختبار الأول في الوحدتين الخامسة والسادسة منهج ريفيل

4

# المزيد من الملفات بحسب الصف الحادي عشر المتقدم والمادة رياضيات في الفصل الأول

ورقة عمل مميزة في الوجدتين الخامسة والسادسة منهج ريفيل

5



**Lesson: 8.1+8.2**

Sample type	Definition	Example	Biased?
<b>Self-selected</b>	Self-selected Members volunteer to be included in the sample.	A TV show host asks his viewers to visit his website and respond to an online poll.	probably biased: People who take the time to respond tend to have similarly strong opinions compared to the rest of the population
<b>Convenience</b>	The researcher chooses a sample that is readily available in some non-random way.	A researcher polls people as they walk by on the street.	probably biased: The location and time of day and other factors may produce a biased sample of people.
<b>Simple random</b>	Each member has an equal chance of being selected	A teacher puts students' names in a hat and chooses without looking to get a sample of students.	Sometimes: Random samples are usually fairly representative since they don't favor certain members <b>IF the sample size is big enough.</b>
<b>Systematic</b>	Members of the population are put in some order. A starting point is selected at random, and every $n^{\text{th}}$ member is selected to be in the sample	A principal takes an alphabetized list of student names and picks a random starting point. Every 20 <sup>th</sup> student is selected to take a survey	unbiased <b>IF the sample size is big enough.</b>
<b>Stratified</b>	The population is first split into groups. The overall sample consists of some members from every group. The members from each group are chosen randomly	A student council surveys 100 students by getting random samples of 25 freshmen, 25 sophomores, 25 juniors, and 25 seniors	unbiased



**Ex1:** Identify the sample and the population. Then classify the sample as simple random, systematic, self-selected, convenience, or stratified. Explain your reasoning.

a) A researcher polls 6 people as they walk by on the mall

**Population: Customers in a mall**

**Sample : 6 of the customers**

**Type : convenience**

b) Using a random number generator to select students in a class to complete a task

**Population: The students in a class** 214939

**Sample : Some of the students**

**Type : Simple random**

c) Finding out a favorite TV series from different age categories of students in a school

**Population: The students in a school**

**Sample : Some of those students**

**Type : stratified**

d) A list of people with their first names in alphabetical order are numbered. The 5th person is chosen randomly, followed by every subsequent 8<sup>th</sup> person.

**Population: People**

**Sample : Some of those people**

**Type : systematic**

e) A company manager asks some of the employees to volunteer in helping him in a study by answering an online survey

**Population: Employees who works in a company**

**Sample : Some of volunteering employees**

**Type : self-selected**



**Ex2:** Identify each sample or question as biased or unbiased. Explain your reasoning.

1) Teacher asked the class this question (Don't you think that the class board needs cleaning)

**Biased , The answer of the question encourages a certain answer . the phrase "don't you agree" suggests that people surveyed should agree**

2) A department store asks customers to visit the store's website and take a survey concerning their shopping experience

**Biased - only those with interest to volunteer are sampled. Those with strong feelings about shopping experience are more likely to respond.**

3) What drink do you prefer tea or latte

**Biased, The question only gives two options and thus encourages a certain response**

4) A phone-in survey is taken by a radio station to see how many listeners enjoy jazz in the morning.

**Biased, responses are only from listeners who decide to call in**

5) Every fortieth student who enters the school is asked to name their favorite sport.

**Unbiased, systematic**

6) Each math class randomly selects 5 students do represent their class on an advisory panel being assembled by the principal.

**Unbiased**

7) A shirt manufacturer wants to check quality control of their products. The plant manager decides to check every 5th shirt inspected by Inspector D. There are 15 inspectors in the plant.

**Biased, only Inspector D's shirts are being checked**

8) A survey is conducted at the local shopping mall about household products used daily.

**Biased, only customers at the shopping mall have an opportunity to be surveyed**



**Ex3:** Determine whether each situation describes a survey, an experiment, or an observational study.

a) To determine the music preferences of their customers, the manager of a music store selected 10 customers in the store to participate in an interview

**Survey**

b) Administrators at a community library want to know the type of materials patrons are most likely to use. Every Friday, they record the type of media each patron uses.

**Observational study**

c) To determine whether the school should purchase new computer software, the technology team divides a group of 50 students into two groups by age. Half of the students from each age group are randomly selected to complete an activity using the current computer software, and the other half of the students from each group complete the same activity using the new computer software. The students' actions are recorded and analyzed.

**Experiment**

**Ex4:** Khalid rolled a die 120 times and got the following results.

Face	1	2	3	4	5	6
no. of times	15	24	13	20	18	30

a) Find the theoretical probability of getting a number 5

$$\frac{1}{6}$$

b) Find the experimental probability of getting a number 5

$$\frac{18}{120}$$

c) Find the theoretical probability of getting a number greater than 2

$$\frac{4}{6}$$

d) Find the experimental probability of getting a number greater than 2

$$\frac{13+20+18+30}{120} = \frac{27}{40}$$



**Ex5:** A survey of Hartford High School students found that 50% of the students had brown hair, 40% had blonde hair, and 10% had red hair. Design a simulation that can be used to estimate the probability that a randomly selected student will have one of these hair colors. Assume that each student's hair color will fall into one of these categories.

There are several possible answers to this question depending on the way you will choose to design the simulator **for example**

We can create a spinner by dividing its circle into three sectors and central angles will be calculated like this:

$$\text{Brown} = 50\% \times 360^\circ = 180^\circ$$

$$\text{Blonde} = 40\% \times 360^\circ = 144^\circ$$

$$\text{Red} = 10\% \times 360^\circ = 36^\circ$$

then spin the spinner

