

Today's Learning Goal(s):

By the end of the class, I will:

- a) have reviewed my notes, examples and homework for this unit
- b) be able to correctly explain all the new vocabulary for this unit (about **30** terms).
- c) be ready to do the Unit 3 Summative.

Questions from the lesson on Common Distributions. (See next screen)

Distribute *Formative* Assessment (Done Spring 2017)

Questions from last day's review homework? (Some scans follow)

~~Return and correct In-class assignment on Measures of Spread.~~ (Done Spring 2017)

Review vocabulary from unit, using word wall pic.

Correct formative assessment.



If you are not done yesterday's review work, finish it NOW!

Before you begin today's review work, turn to p.557

Under "Chapter 3 Practice Test, pages 158-159",

for #5a there is also **measurement bias** for #9 the **variance** should be **204.49** and the **standard deviation** should be **14.3**.

Please write these corrections in the back of the textbook.

Today's review work:

pp.158-159 #1 to 4, 5a*, 5b, 6 to 9*, 10

7

***In #5a the text forgot to say in the Answers section that there is measurement bias!**

Do you know why there is measurement bias in 5a?

***9 variance =204.49, std. dev.=14.3**

Please submit yesterday's homework:

p.156 #1ab, 4, 5, 6, 8, 9, 10, 11a

p.158 #7

Washer

$$\text{diameter} = 1.5 \text{ cm}$$

$$\text{Variance} = 0.01 \text{ cm}$$

$$\begin{aligned} \text{a) std dev} &= \sqrt{\text{Variance}} \\ &= \sqrt{0.01} \\ &= 0.1 \text{ cm} \end{aligned}$$

$$\begin{aligned} \text{b) if } 1 \text{ dev} &= 0.1 \\ \therefore 2 \text{ dev.} &= 0.2 \end{aligned}$$

$$1.5 + 0.2 \text{ or } 1.5 - 0.2$$

$$1.7 \text{ cm or } 1.3 \text{ cm}$$

Nut

$$\text{diameter} = 1.15 \text{ cm}$$

$$\text{std. dev.} = 0.01 \text{ cm}$$

$$\begin{aligned} \text{c) } 1 \text{ dev} &= 0.01 \\ 2 \text{ dev.} &= 0.02 \end{aligned}$$

$$1.15 + 0.02 \text{ or } 1.15 - 0.02$$

$$1.17 \text{ cm or } 1.13 \text{ cm}$$

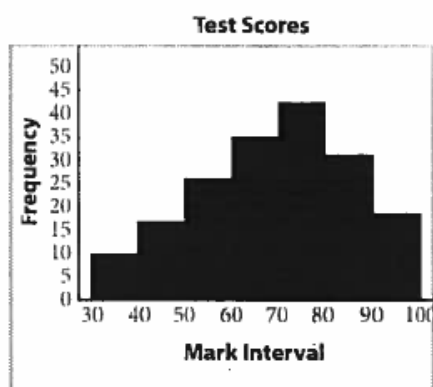
3.6 Common Distributions

p.155 #7

Achievement Check Answers (page 155)

7. a)

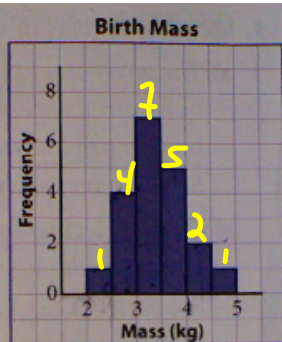
Mark Interval	Frequency
[30–40)	10
[40–50)	17
[50–60)	26
[60–70)	35
[70–80)	43
[80–90)	31
[90–100]	19



c) This is a skewed distribution because it is asymmetrical or lopsided.

p. 156

8. The histogram shows the birth masses, in kilograms, of babies born at a hospital in one week.



- a) How many babies were born with a mass of at least 4.0 kg?
- b) What percent of the babies born were at least 2.0 kg but less than 3.5 kg?
- c) Explain why birth mass can be displayed in a histogram.

a) mass at least 4 kg
 \hookrightarrow 3 babies

b) $1 + 4 + 7 = 12$ babies

$$\frac{12}{20} \times 100$$

$$= 60\%$$

\hookrightarrow the data is continuous.

p.156 #10

12 statues for \$500

50 paintings \$100

100 tiles \$25

Mode = \$25

Median = \$25

Total Number of Items = 162

$$a) \text{Mean} = \frac{12(500) + 50(100) + 100(25)}{162}$$

$$= \frac{6000 + 5000 + 2500}{162}$$

$$= \frac{13500}{162}$$

$$= 83.33$$

p. 109

- 11.** Keira works for the Canada Customs and Revenue Agency at a busy border crossing. She needs to search 10 randomly selected vehicles over a 10-h period. To choose the vehicles, she randomly selects a time from 2 P.M. to midnight. She does this 10 times. For each time, she randomly selects one of 20 gates. The vehicle at that gate and time will be searched.
- a) What type of sampling is Keira using? Justify your answer.
 - ~~b) Use technology to make a table of random times and gates.~~
 - c) How likely is it that the same time and gate will occur twice? Explain.

p. 109

12. A school board wants to select 200 elementary students to test a new mathematics home study program for grades 4 to 7. The board numbers the elementary schools from 1 to 35 then uses a random number generator to choose two schools. Each school selects 100 students. Students are randomly selected from each grade by applying the percent of students in each grade to the number who will use the program.

- Identify the sample and the population in the study.
- The first school has chosen 100 students: 20% are grade 4s, 25% are grade 5s, 30% are grade 6s, and the rest are grade 7s. How many students from each grade will participate in the study?
- The second school has 500 students in grades 4 to 7. If there are 100 grade 4s, 100 grade 5s, 150 grade 6s, and the rest are grade 7s, how many students from each grade will be chosen for the study?
- Explain a method to determine which students at each school will participate in the study.

a) Population

↳ all students
grades 4-7.

Sample 200 students
from 2 schools.

b) Gr.4 Gr.5 Gr.6 Gr.7
20 25 30 25

c) Gr.4 Gr.5 Gr.6 Gr.7
 $\frac{100}{500} \times 100$ $\frac{100}{500} \times 100$ $\frac{150}{500} \times 100$ $\frac{150}{500} \times 100$
 = 20 = 20 = 30 = 30

Attachments

Word Wall Pic.jpg