

## QR 101: Review for the Final Exam

### Unit 2 — Answers for the Test Review for Managing Your Money

- 1) 20%
- 2) 26.4%
- 3) 17.5%
- 4) sales tax = \$3.25, total cost = \$53.20
- 5) \$183.99
- 6) \$377,000
- 7) \$1,980.00
- 8) Chefs at 1.16% compared to the Food Service Managers at 1.06%
- 9) Two possible answers: 1) Estimate a year at 52 weeks, then multiply \$1,702.11 by 26 to get \$44,254.86.  
2) Divide \$1,702.11 by 14 to get a daily average, then multiply that by 365 days to get \$44,376.44.
- 10) \$2,799.67
- 11) \$2,153.50
- 12) \$829.13
- 13) 29.1%
- 14) \$620.38
- 15) \$425.45
- 16) \$750
- 17) \$6,532.00
- 18) \$3,258.75
- 19) \$4,760
- 20) \$22.00; \$622.00
- 21) \$1,863; \$10,863; \$301.75
- 22) 4%
- 23) 5 years; \$16.00
- 24) a. \$35,000; b. \$40,710.04
- 25) 17.55%
- 26) 13.42%
- 27) \$9,354.16
- 28) \$20,925.96; Interest earned: \$2925.96
- 29) \$504.71
- 30) \$48,358.05
- 31) \$26.00, \$167.96
- 32) a. \$1,189; b. \$28.29; c. \$2,007.40; d. \$508.40
- 33) Amount financed = \$6,900; total installment price = \$10,300; finance charge = \$2,100
- 34) \$102,084.73
- 35) Average daily balance = \$395.37; finance charge = \$19.77; new balance = \$445.56
- 36) Average daily balance = \$229.02; finance charge = \$41.22; new balance = \$318.34
- 37) Average daily balance = \$998.81; finance charge = \$18.98; new balance = \$859.81
- 38)  $(\text{Principal balance} \times \text{interest rate})/365.25$
- 39)  $(\text{Days in Month})(\text{Daily interest amount})$
- 40) 4 Years and 3 Months
- 41) \$46.34
- 42) Yearly: \$621.60; Daily: \$1.7018; Monthly: \$51.0540; Total Interest: \$2,639.56
- 43) Yearly: \$486.40; Monthly: \$39.95; Interest added upon graduation \$1818.75;  
principal: \$9418.75; Monthly payment: \$106.47; Total Interest Paid: \$5,176.40  
Subsidized Monthly payment \$85.91; Interest: \$2,709.20; Save: \$2,467.20
- 44) Down payment = \$45,960.00; Amount to borrow = \$183,840.00

45) \$444,038.80

46) (a) Down payment = \$131,775.00 (b) Principal Financed = \$244,725.00

(c) Monthly payment = \$1,710.63 (d) Total interest paid = \$371,101.80

47) Principal: 217,125; Monthly payment = \$1,518.17; total interest paid = \$329,416.20

48) \$4,170.56

49) Monthly payment = \$1,638.57; Money saved = \$41,107.80

Payment Number	Interest	Payment on Principle	Balance of Loan
1	\$344.17	\$186.24	\$58,813.76
2	\$343.08	\$187.33	\$58,626.43
3	\$341.99	\$188.42	\$58,438.01

QR 101: Unit 4 — Test Review Answers for Statistics

1.a. all subjects under study; representative subgroup or subset of a population

1.b. all college students GPAs

1.c. the group of students GPAs which were actually included in the averages

1.d. random

1.e. systematic

1.f. stratified

1.g. cluster

1.h. adding the values of the data and dividing by the total number of values

1.i. median

1.j. midrange

1.k. mode

2)

3.

Type	Tally	Frequency
R		11
S		6
N		5
C		8

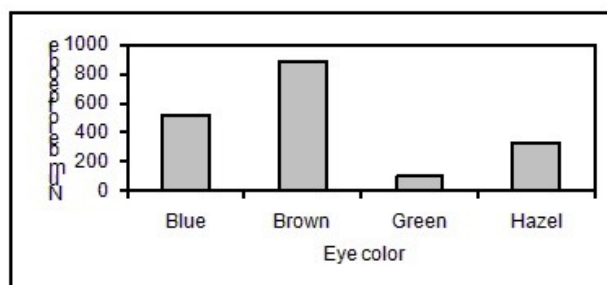
Classes	Freq
15-20	8
21-26	5
27-32	2
33-38	1
39-44	4

4. a. None; b. 2; c. 20; d. 59

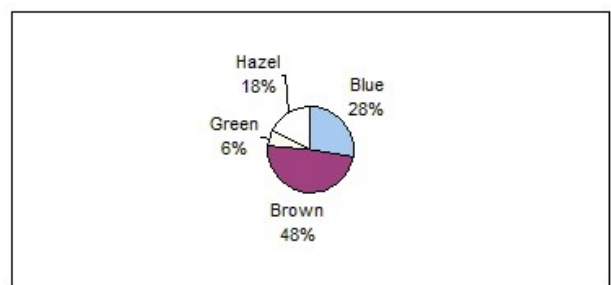
5.

5	0 0
6	
7	0 1 5 6 8 9 9
8	0 7 7 9
9	0 2

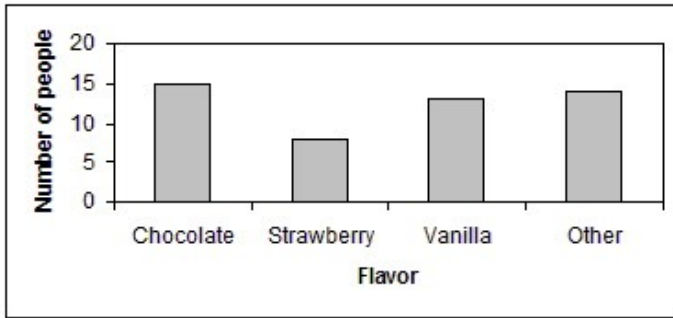
6.



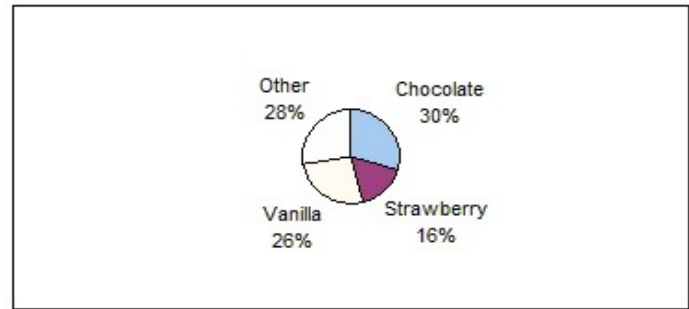
7. Blue 100°; Brown 175°; Green 21°; Hazel 64°



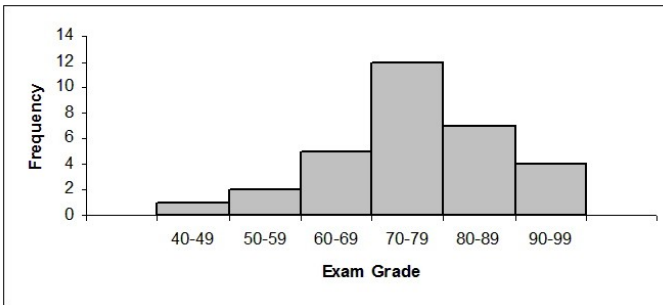
8.



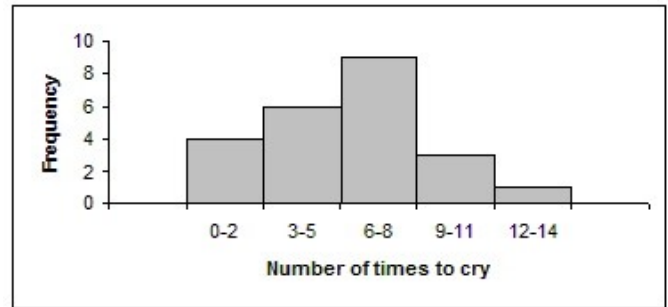
9. Choc 108°; Straw 58°; Van 94°; Other 101°



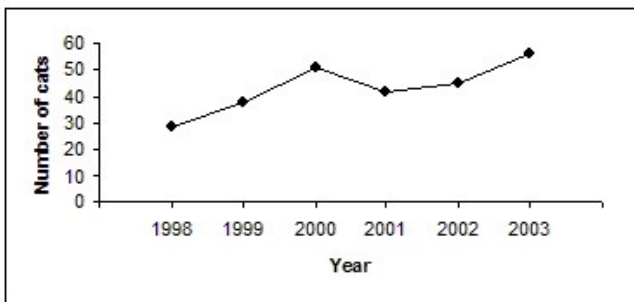
10. Mean: 75.5



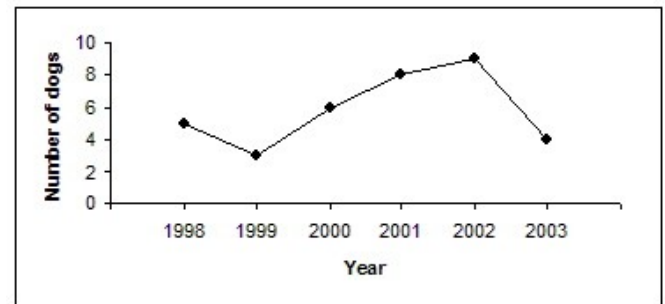
11. Mean: 5.8



12.



13.



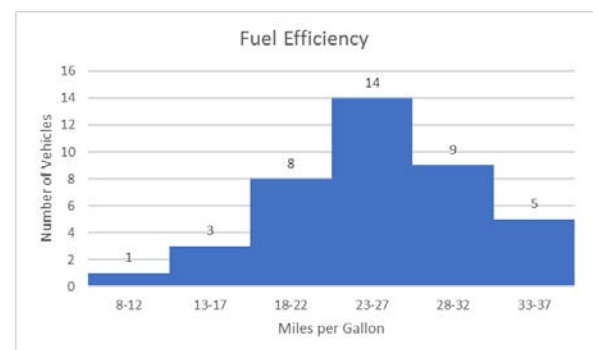
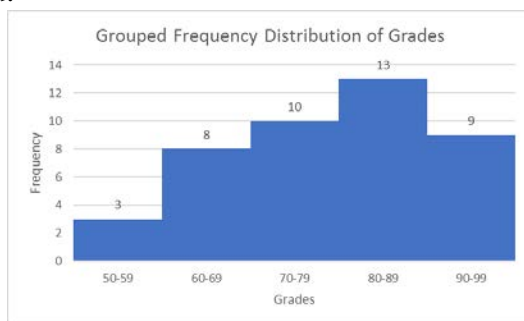
14. mean: 50.5, median: 53, mode: 59, midrange: 48

15. Modes: 83° and 87°; median: 84.75°

16 a. Mean: 530, median 411 acres which is much smaller than the mean. The mean is much more effected by the one value that is much larger than the others. Skewed right or positively skewed.

b. The new mean is 339.3 acres and the new median is 360 acres. That one large value did in fact skew the mean upward.

17. 78.45



18. True mean of 24.70, estimated mean of 25.25

19. 86.2 quality points for a grade of B

20. 149 quality points out of 180 possible points which is 82.8% for a grade of B

21. 93<sup>rd</sup> percentile

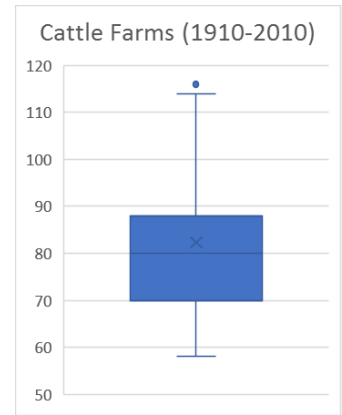
22. 260

23. 45

24. 94<sup>th</sup> percentile football; 97<sup>th</sup> percentile baseball;  
therefore, the baseball team was ranked higher

25.  $Q_1 = 18.5$ ,  $Q_2 = 20$ , and  $Q_3 = 23$

26.  $Min = 58$ ;  $Q_1 = 70$ ,  $Q_2(Median) = 80$ ,  $Q_3 = 88$ ,  $Max = 116$ ;  
 $LF = 43$ ;  $UF = 115$ ; outlier at 116



27. Lowest Score 54

First Quartile 60

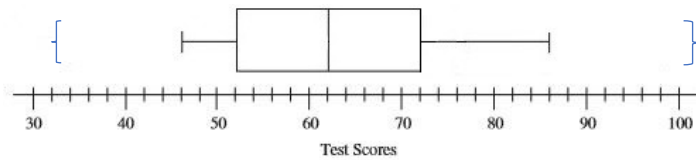
Median 70

Third Quartile 81

Highest Score 94

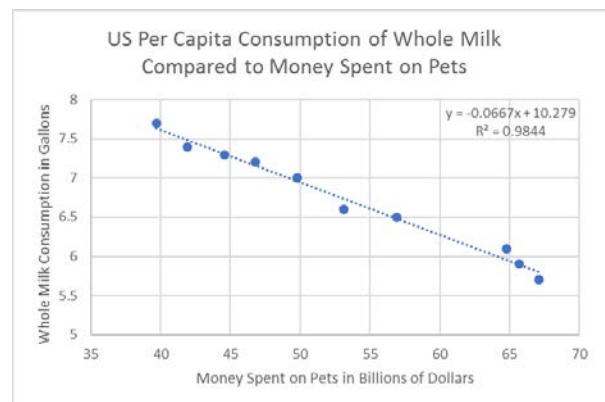
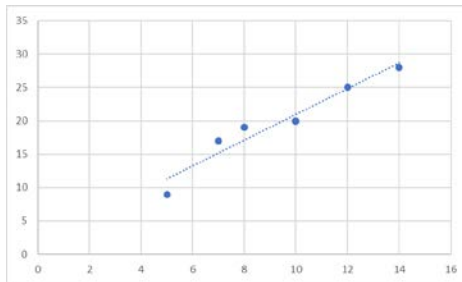
Interquartile Range 21

28.



UF=102; LF=32

29. A positive linear relationship exists.



30. Negative linear relationship

31. when we spend \$60B on pets, we expect to drink 6.277 gallons of milk.

32.

$r = -1$	d
$r = -0.9$	b
$r = -0.5$	f
$r = 0.5$	a
$r = 0.9$	e
$r = 1$	c

33. asking biased questions

34. asking double-barreled questions

35. Using double negatives

36. Increase:  $\$32(12) = \$384$ ; percent increase: 12.9% Which the advocacy group might choose is an opinion.

37. Median 17; Modes 19; Mean 15.35

**a.** Because of the two zeroes, mean is low. That makes it seem like the scores were awful.

**b.** The mode was 19; great job class! Most of the scores were high, but the two zeroes lowered all other measures of average.

38. The second. Due to the scale, you have to look very closely to see any improvement at all.

QR 101: Unit 8 — Answers for Measurements Review

- 1) dimensional analysis
- 2) 2.65 mi
- 3) 4 pounds
- 4) 12 m
- 5) 2.02 inches
- 6) 33 feet
- 7) 9 gallons
- 8) 1.81 cu yd
- 9) 9,284.54 quarts
- 10) 2.186 kL, 579.29 gal
- 11) 800 fluid ounces or 23.6 Liters; 3 cases of cans for \$14.97 or 12 2-Liter bottles for \$15.48; cans are cheaper.
- 12) He will need to purchase 16 jars.
- 13) 2,041 lb
- 14) 2.5 pounds
- 15) 7,524 pounds
- 16) 48.2°F
- 17) -27.78°C
- 18)  $SA = 314 \text{ ft}^2$      $V = 360 \text{ ft}^3$
- 19)  $SA = 282.6$  square inches,  $V = 339.12$  cubic inches
- 20) Volume:  $672 \text{ ft}^3$ ; Surface area:  $488 \text{ ft}^2$ ; ratio: 1.38
- 21) Volume:  $21.94 \text{ in.}^3$ ; Surface area:  $45.62 \text{ in.}^2$ ; ratio: 0.48
- 22) Surface Area:  $8168.14 \text{ ft}^2$ ; Total of 47 gallons; Nine 5-gallon buckets and two 1-gallon cans
- 23) 2.94 kg
- 24) 11.19 kg
- 25) 55.12 in.
- 26) 80.5 km per hour; 73 ft per second
- 27) 243.04 mi
- 28) 11 feet/sec ; 7.5 miles/hour; 12.075 km/hour
- 29) 4.1 hours
- 30) shorter than
- 31) shorter than
- 32) shorter than
- 33) greater than
- 34) greater than
- 35) greater capacity than
- 36) greater capacity than
- 37) 76.7g
- 38) 20 ft ; 7 yards; \$55.23.
- 39) 25 m ; \$31.25
- 40) 57 ft ; 10 sections; \$348.80
- 41) 32.768 m
- 42) 12.4 mi
- 43) 6 bags
- 44) 1.97 cubic yards; order 2 yds<sup>3</sup> for a cost of \$230