FST Second Semester Review Key

[1] B

[2] A

[3] Mode

[4] a) $\bar{x} = 6$

b) 12.33

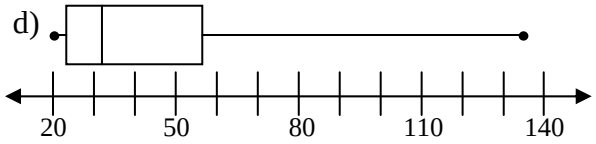
c) 3.51

[5] a) min = 20; Q_1 = 23.5; med = 32.5; Q_3 = 59; max = 134

b) GM at 134 bill

c) 40th percentile

d)



[6] a) 36%

b) 1200-1299

[7] a) line graph

b) histogram or dotplot

c) circle graph

[8] a) 36.7

b) 50.0

c) 29.0

d) 52.0

e) 22.4

[9] False

[10] 11880

[11] D

[12] Y

[13] a) Independent

b) Mutually Exclusive

c) Complementary

[14] a) $\frac{3\pi}{5}$ b) $\frac{3}{10}$

c) $-300°$ d) $-\frac{5}{6}$

e) $-900°$ f) -5π

g) $735°$ h) $\frac{49}{24}$

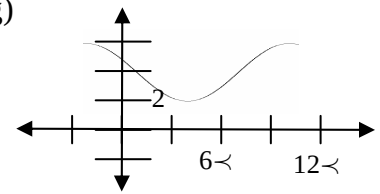
[15] pos: $0 < \theta < \frac{\pi}{2}$ neg: $\frac{\pi}{2} < \theta < \pi$

[16] a) $\Re$ b) $2 \le y \le 6$

c) 2 d) 12π

e) -2π f) + 4

g)



[17] a) 0.72 b) - 0.72

c) 0.72 d) - 0.72

[18] a) -1 b) $-\frac{1}{2}$

c) $\frac{\sqrt{3}}{3}$ d) $-\frac{\sqrt{2}}{2}$

[19] a) $y = \sin\left(x - \frac{\pi}{3}\right) - 1$

b) $y = 7\sin 4x$

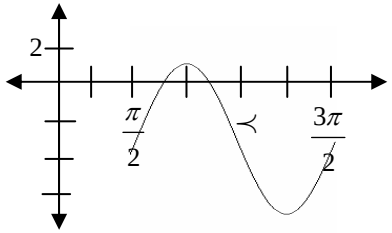
[20] $y = 5\cos 2\left(x - \frac{\pi}{4}\right) + 17$

[21] a) $\Re$ b) $-7 \le y \le 1$

c) 4 d) π

e) $\frac{\pi}{2}$ f) -3

g)



[22] a) $\frac{b}{a}$ b) b

[23] a) 2 b) π

c) 0 d) + 2

e) $y = 2\cos 2x + 2$

[24] a) $\frac{1}{2}$ b) $\frac{2\pi}{3}$

c) $\frac{\pi}{6}$ d) 1

e) $y = \frac{1}{2}\sin 3\left(x - \frac{\pi}{6}\right) + 1$

[25] a) $\frac{3}{4}$ b) $\frac{4}{5}$ c) $\frac{4}{5}$

[26] $\frac{\pi}{6}$

[27] $\frac{3\pi}{4}$

[28] $\frac{\pi}{3}$

[29] D

[30] a) sample: 12 quarts

population: all 1500 quarts

b) $\approx 0.8\%$

c) butterfat content

d) save time and money

[31] a) 4 million

b) summer

[32] B

[33] 1.93

[34] a) geography: 4 spelling:0.25

b) geography

[35] a) 36 b) $\frac{5}{36}$

[36] $\frac{1}{12}$

[37] 3024

[38] $n = 7$

[39] 360

[40] $A = 77.8in^2$, $S = 17.3in$

[41] a) π b) 4π feet

[42] ± 0.49

[43] 25 feet

[44] $62°$

[45] D

[46] $m\angle A = 46.3°$, $m\angle B = 56.2°$,

$m\angle C = 77.5°$

[47] $m\angle Y = 98°$, $y = 3.5$, $z = 1.9$

[48] $28.0\,mm^2$

[49] $m\angle B = 64.6°$ or $115.4°$

[50] no solution