

Na

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- F
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- Y
- T
- T

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2
a.
b.
c.

a)

b)

Class
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2
3
4
5
6
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2. [6
ma
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- a.
- b.
- c.
- d.

a)

d)

3. [6 M
give

- a.
- b.

$$\frac{x}{1}$$
$$2$$
$$3$$
$$4$$

a)

b)

4

1
2
3
4
5
6

10

6. [6 Marks]

- a. are t
- b. are t
alwa
- c. are t

a)
$$\frac{11}{2! 2}$$

"R" "

b)
$$\boxed{R}$$

c)

7.

a

b)

c)

8.

a

b

c

9.

Marks] Consider the fol

ng probability density funct

$$f(x) = \begin{cases} \frac{2}{x^3} & \text{if } x \geq 1 \\ 0 & \text{if } x < 1 \end{cases}$$

Calculate the expected
Calculate the probabi

alue of x .
that x is greater than its me

$$E(x) = \int_1^{\infty} x \cdot \frac{2}{x^3} dx$$
$$= \int_1^{\infty} \frac{2}{x^2} dx$$

$$\int_1^{\infty} \left(\frac{2}{x^3}\right) dx = \int_1^{\infty} 2x^{-2} dx$$

$$\int_1^{\infty} = \frac{-2}{\infty} -$$

$$P(x \geq 2) =$$

$$\int_2^{\infty} \frac{2}{x^3} dx = \int_2^{\infty}$$

$$\frac{-1}{\infty} + \frac{1}{2^2} = \left(\frac{1}{4}\right)$$

10. [6 Mar
every
during
a. V
b. V
th
c. V
th

a)

b)

c)


11. [9 Marks
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- a. Doc
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- b. Ho
to v
- c. Cal

a) H
H
Z.

S
T

b) J
E

c) 

$$P_c = .24$$

$$\underline{\underline{.30}}$$

12. [9 Marks]
sample
random
deviation
distribution

a.

b.

a)

b)

8

13. [7 Marks]
local bore
motorists
and noon

F

Is there a
two time

$H_0: \mu$

$H_a: \mu$

$$t^* = \frac{\bar{d}}{\frac{s}{\sqrt{n}}}$$

$$= \frac{7.2}{\frac{4.2}{\sqrt{40}}}$$

$$t^* = 2.82$$

Since

there is

time

14. [7 Marks] C.
casino is a f
(use $\alpha = 0.0$)

$H_0:$

$H_a:$

$\chi^2 =$

=

$\chi^2 =$

Since

re