

Practice Exam

Test #4

This is meant as an aid for studying. There is no guarantee that the questions on the actual exam will be identical or even similar to these.

1. Page 11.18, Problem #2
2. Page 11.18, Problem #13
3. Page 11.33, Problem #6
4. Page 11.33, Problem #16
5. Page 11.33, Problem #24
6. Page 11.46, Problem #4
7. Page 12.7, Problem #6
8. Page 12.7, Problem #14
9. Page 12.20, Problem #8
10. Page 12.20, Problem #12

Answers:

1. (a)

	Ball 1					
	1	2	3	4	5	
Ball 2	1	2	3	4	5	6
	2	3	4	5	6	7
	3	4	5	6	7	8
	4	5	6	7	8	9
	5	6	7	8	9	10

(b)

Outcome X	2	3	4	5	6	7	8	9	10
Probability	1/25	2/25	3/25	4/25	5/25	4/25	3/25	2/25	1/25

(c) 5/25

(d) $\frac{2}{25} + \frac{1}{25} = \frac{3}{25}$

(e) 6

(f) 2

2. 1/6 of a dollar

3. 5

4. $f(x) < 0$ for $0 < x < 4$

5. (a) 1/5

(b) 1/3

(c) 0

6. (a) 14/5

(b) 33/50

(c) 0.81

7. $y = Ce^{x^3} \Rightarrow y' = 3x^2 Ce^{x^3} = 3x^2 y$

8. $y_p = 4e^{3x}$

9. $y^2 = x^2$

10. $y = (\sqrt{x} + \sqrt{2} - 1)^2$