

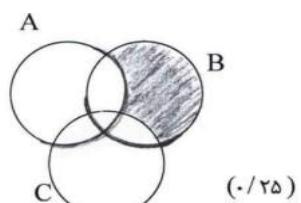
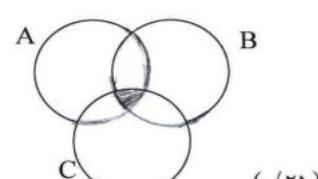
فصل سوم جبر و احتمال

مفهوم آزمایش تصادفی

۱	<p><b>الف) پدیده تصادفی (۰/۲۵)</b></p> <p><b>ب) پدیده قطعی (۰/۲۵)</b></p> <p style="color: blue; font-size: 1.5em; margin-top: 10px;">فضای نمونه ای و پیشامد تصادفی</p>
۲	<p><b>الف) <math>S = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5), (5,1), (5,2), (5,3), (5,4), (5,5)\}</math> (۰/۵)</b></p> <p><b>ب) <math>A = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5)\}</math> (۰/۵)</b></p> <p><b>ج) <math>B = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5)\}</math> (۰/۵)</b></p> <p><b>د) <math>B' = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5)\}</math> (۰/۲۵)</b></p> <p><b>پامی توان نوشت <math>A \cap B' = A</math> (۰/۰۵)</b></p>
۳	<p><b>الف) <math>S = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5), (5,1), (5,2), (5,3), (5,4), (5,5)\}</math> (۰/۵)</b></p> <p><b>ب) <math>A = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5), (5,1), (5,2), (5,3), (5,4), (5,5)\}</math> (۰/۵)</b></p> <p><b>ج) <math>B = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5), (5,1), (5,2), (5,3), (5,4), (5,5)\}</math> (۰/۰۵)</b></p> <p><b>د) <math>A' = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5), (5,1), (5,2), (5,3), (5,4), (5,5)\}</math> (۰/۰۵)</b></p> <p><b>پامی توان نوشت <math>B' = B</math> (۰/۰۵)</b></p>
۴	<p><b>الف) <math>A = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5), (5,1), (5,2), (5,3), (5,4), (5,5)\}</math> (۰/۰۵)</b></p> <p><b>ب) <math>B = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5), (5,1), (5,2), (5,3), (5,4), (5,5)\}</math> (۰/۰۵)</b></p> <p><b>ج) <math>C = \{(1,1), (1,2), (1,3), (1,4), (1,5), (2,1), (2,2), (2,3), (2,4), (2,5), (3,1), (3,2), (3,3), (3,4), (3,5), (4,1), (4,2), (4,3), (4,4), (4,5), (5,1), (5,2), (5,3), (5,4), (5,5)\}</math> (۰/۰۵)</b></p>

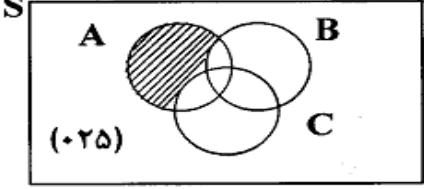
<span style="color: orange;">٤</span> <b>جزء اول</b>	<p>الف) <math>S = \{(ب, ب, ب), (ب, ب, ر), (ب, ر, ب), (ر, ب, ب), (ر, ب, ر), (ر, ر, ب)\} \quad (./5)</math></p> <p>ب) <math>A = \{(ب, ب, ب), (ب, ب, ر), (ب, ر, ب), (ر, ب, ب), (ر, ب, ر), (ر, ر, ب)\} \quad (./5)</math></p> <p>ج) <math>B = \{(ب, ب, ب), (ب, ب, ر), (ب, ر, ب), (ر, ب, ب)\} \quad (./5)</math></p> <p>د) <math>A \Delta B = \{(ب, ب, ب), (ب, ب, ر), (ب, ر, ب), (ر, ب, ب), (ر, ب, ر), (ر, ر, ب)\} \quad (./5)</math></p>	<span style="color: orange;">٥</span>
<span style="color: orange;">٦</span> <b>شهریور</b>	<p>الف) <math>S = \{٢, ٤, ٦, ٨, ١٠, ١٢, ١٤, ١٦, ١٨, ٢٠\} \quad (./5)</math></p> <p>ب) <math>A = \{١٠, ٢٠\} \quad (./5)</math></p> <p>ج) <math>B = \{٢, ٤\} \quad (./25)</math></p> <p>ت) <math>A' = \{٢, ٤, ٦, ٨, ١٢, ١٤, ١٦, ١٨\}</math></p> <p><math>A' \cap B = \{٢, ٤\} \quad (./25)</math></p>	<span style="color: orange;">٦</span>
<span style="color: orange;">٧</span> <b>شهریور</b>	<p>الف) <math>S = \{١, ٣, ٥, ٧, ٩, ١١, ١٣, ١٥, ١٧\} \quad (./5)</math></p> <p>ب) <math>A = \{٣, ٩, ١٥\} \quad (./5)</math></p> <p>ج) <math>B = \{١, ٩\} \quad (./5)</math></p> <p>د) <math>A - B = \{٣, ١٥\} \quad (./5)</math></p>	<span style="color: orange;">٧</span>
<span style="color: orange;">٨</span> <b>خرداد</b>	<p><math>n(S) = ٦ \times ٦ = ٣٦ \quad (./25)</math></p> <p><math>A = \{(٢, ٦), (٣, ٥), (٤, ٣), (٥, ٢), (٦, ٢)\} \quad (./5)</math></p> <p><math>B = \{(٣, ٥), (٥, ٣), (٥, ٦), (٦, ٥)\} \quad (./25)</math></p> <p><math>A - B = \{(٢, ٦), (٤, ٣), (٦, ٢)\} \quad (./5)</math></p>	<span style="color: orange;">٨</span>
<span style="color: orange;">٩</span> <b>شهریور</b>	<p>(./5) <math>S = \{٣٠, ٣٥, ٣٩, ٥٠, ٥٣, ٥٩, ٩٠, ٩٣, ٩٥\}</math></p> <p>(./5) <math>A = \{٣٠, ٣٥, ٥٠, ٩٠, ٩٥\}</math></p> <p>(./5) <math>B = \{٥٣, ٥٩, ٩٠, ٩٣, ٩٥\}</math></p> <p>(./25) <math>B' = \{٣٠, ٣٥, ٣٩, ٥٠\}</math></p> <p>(./25) <math>A \cap B' = \{٣٠, ٣٥, ٥٠\}</math></p>	<span style="color: orange;">٩</span>

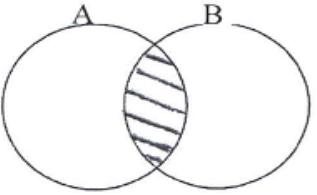
<span style="color: orange;">٨٧</span> $A = \{(1, 1), (1, 2), (1, 3), (1, 4), (1, 5), (1, 6)\}$ (٠/٥) $B = \{(2, 1), (2, 2), (2, 3), (2, 4), (2, 5), (2, 6), (3, 1), (3, 2), (3, 3), (3, 4), (3, 5), (3, 6)\}$ $C = \{(1, 1), (1, 2), (1, 3), (1, 4), (1, 5), (1, 6), (2, 1), (2, 2), (2, 3), (2, 4), (2, 5), (2, 6)\}$ (٠/٥) $C - B = \{(1, 1), (1, 2), (1, 3), (1, 4), (1, 5), (1, 6)\}$ (٠/٥)	<span style="color: orange;">٩</span>
<span style="color: orange;">٨٨</span> <span style="color: orange;">جزء ثالث</span> <b>الف)</b> $n(s) = ٢٤ = ١٦$ (٠/٥) <b>ب)</b> $A = \{(ر, ر, ر, ر), (ر, پ, پ, ر), (ر, پ, ر, پ), (پ, ر, ر, پ), (پ, پ, ر, ر), (پ, پ, پ, پ)\}$ (٠/٥) <b>ج)</b> $B = \{(ر, ر, ر, ر), (ر, ر, پ, پ), (ر, پ, ر, ر), (پ, ر, ر, ر), (پ, پ, ر, ر)\}$ (٠/٥) <b>د)</b> $A - B = \{(ر, ر, ر, ر)\}$ (٠/٥)	<span style="color: orange;">١٠</span>
<span style="color: orange;">٨٩</span> <span style="color: orange;">الجزء الرابع</span> <b>الف)</b> $S = \{(١, ١), (١, ٢), (١, ٣), (١, ٤), (١, ٥), (١, ٦), (٢, ١), (٢, ٢), (٢, ٣), (٢, ٤), (٢, ٥), (٢, ٦)\}$ (٠/٥) <b>ب)</b> $A = \{(٢, ٤), (٢, ٥), (٢, ٦), (٣, ٤), (٣, ٥), (٣, ٦)\}$ (٠/٥) <b>ج)</b> $B = \{(٢, ١), (٢, ٢), (٢, ٣), (٢, ٤), (٢, ٥), (٢, ٦)\}$ (٠/٥) <b>د)</b> $A - B = \{(٢, ٤), (٢, ٥), (٢, ٦)\}$ (٠/٥)	<span style="color: orange;">١١</span>
<span style="color: orange;">٩٠</span> <span style="color: orange;">الجزء الخامس</span> $S = \{12, 13, 14, 21, 23, 24, 31, 32, 34, 41, 42, 43\}$ (٠/٥) <b>الف)</b> <b>ب)</b> $A = \{12, 24, 42\}$ (٠/٢٥) <b>ج)</b> $B = \{13, 23, 31, 41, 43\}$ (٠/٢٥) <b>د)</b> $B' = \{12, 14, 21, 24, 32, 34, 42\}$ (٠/٥) <b>ه)</b> $A \cap B' = \{12, 24, 42\}$ (٠/٥)	<span style="color: orange;">١٢</span>
<span style="color: orange;">٩١</span> <span style="color: orange;">جزء السادس</span> <b>الف)</b> $n(s) = ٣٦$ (٠/٢٥) <b>ب)</b> $A = \{(1, 1), (2, 2), (3, 3), (4, 4), (5, 5), (6, 6)\}$ (٠/٥) <b>ج)</b> $B = \{(2, ٣), (٣, ٢), (٢, ٥), (٥, ٢), (٣, ٥), (٥, ٣), (٢, ٢), (٣, ٣), (٥, ٥)\}$ (٠/٧٥) <b>د)</b> $C = A - B = \{(1, 1), (4, 4), (6, 6)\}$ (٠/٥)	<span style="color: orange;">١٣</span>

١٤	$S = \left\{ (وقوق) و (سوق) و (قوس) و (سوس) \right\} (٠/٥)$ $A = \left\{ (سوق) و (قوس) \right\} (٠/٥)$ $B = \left\{ (وقوق) و (سوق) و (قوس) \right\} (٠/٥)$ $A \cup B' = \left\{ (سوس) و (سوق) و (قوس) \right\} (٠/٥)$
١٥	<p>٢٩</p> <p>الف) <math>B - (A \cup C)</math> (٠/٢٥)</p>  <p>ب) <math>A \cap B \cap C</math> (٠/٢٥)</p> 
١٦	<p>٣٨</p> $A = \{(ر, ١), (ر, ٢), (ر, ٣), (ر, ٤), (ر, ٥), (ر, ٦), (ب, ٤)\}$ (٠/٧٥) $B = \{(ر, ٤)\}$ (٠/٢٥)
١٧	<p>٣٩</p> <p>الف) پیشامد یا برآمد (٠/٢٥)      ب) ٢١٢      ج) پیوسته - گستته هر قسمت (٠/٢٥)</p>
١٨	<p>٣٩</p> $A = \{٣, ٦, ٩, ١٢, ١٥, ٢٥, ٧, ١١, ١٣\}$ (٠/٥) $B = \{٣, ٥, ٧, ١١, ١٣\}$ (٠/٥)

شنبه ۹۰	<p>(الف) <math>n(S) = 25</math></p> <p>(ب) هر دو عضو نوشته شده ۰/۲۵ نمره دارد.</p> <p>(ج) <math>B = \{41, 43, 45, 51, 53, 55\}</math></p>	۱۹
یک ۹۰	<p>الف) <math>A = \{(1, 1), (2, 4), (4, 2)\}</math></p> <p>ب) <math>B = \{(1, 4), (2, 1), (2, 4), (5, 4), (5, 1), (4, 1), (4, 2), (4, 3), (4, 5), (4, 6)\}</math></p> <p>پ) <math>A \cap B = \{(2, 4), (4, 2)\}</math></p> <p>ت) <math>A - B = \{(1, 1)\}</math></p>	۲۰
خرداد ۹۱	<p>الف) <math>S = \{(1, 1, 1), (1, 1, 2), (1, 2, 1), (2, 1, 1), (1, 2, 2), (2, 1, 2), (2, 2, 1), (2, 2, 2)\}</math></p> <p>ب) <math>A = \{(1, 2, 1), (1, 2, 2), (2, 1, 1), (2, 1, 2)\}</math></p> <p>پ) <math>B = \{(1, 1, 1), (1, 1, 2), (2, 1, 1), (2, 1, 2)\}</math></p> <p>ت) <math>B - A = \{(1, 1, 1), (1, 1, 2)\}</math></p>	۲۱
شنبه ۹۱	<p>الف) <math>S = \{(1, 1), (1, 2), (1, 3), (1, 4), (1, 5), (2, 1), (2, 2), (2, 3), (2, 4), (2, 5), (3, 1), (3, 2), (3, 3), (3, 4), (3, 5), (4, 1), (4, 2), (4, 3), (4, 4), (4, 5), (5, 1), (5, 2), (5, 3), (5, 4)\}</math></p> <p>ب) <math>A = \{(1, 4), (2, 5), (3, 6)\}</math></p> <p>پ) <math>B = \{(1, 2), (2, 4), (3, 6)\}</math></p> <p>ت) <math>A' \cap B' = (A \cup B)' = \{(1, 1), (1, 2), (1, 3), (1, 5), (2, 1), (2, 3), (2, 5), (3, 1), (3, 2), (3, 4), (3, 5), (4, 1), (4, 2), (4, 3), (4, 5), (5, 1), (5, 2), (5, 3), (5, 4)\}</math></p>	۲۲
یک ۹۱	<p>الف) پیوسته (۰/۲۵)</p> <p>ب) پیوسته (۰/۲۵)</p>	۲۳



شنبه بیانی ۹۳	نامساوی (۰/۲۵) و تساوی (۰/۲۵)	۳۵
شنبه بیانی ۹۳	$A - (B \cup C) \quad (0/25)$	۳۶
شنبه بیانی ۹۳		۳۷
شنبه بیانی ۹۳	<p>(الف) <math>S = \left\{ \overbrace{(1,1)}^{(0/25)}, \overbrace{(1,2)}^{(0/25)}, \overbrace{(1,3)}^{(0/25)}, \overbrace{(2,1)}^{(0/25)}, \overbrace{(2,2)}^{(0/25)}, \overbrace{(2,3)}^{(0/25)}, \overbrace{(3,1)}^{(0/25)}, \overbrace{(3,2)}^{(0/25)}, \overbrace{(3,3)}^{(0/25)} \right\}</math></p> <p>(ب) <math>A = \{(1,2), (1,3), (2,1)\} \quad (0/5)</math></p> <p>(ج) <math>B = \{(1,1), (2,2), (3,3)\} \quad (0/5)</math></p>	۳۸
دوی ۹۳	$S = \{2, 4, 6, 8, 10\} \quad (0/5)$ $A = \{2\} \quad (0/25)$ $B = \{6\} \quad (0/25)$ $B' = \{2, 4, 8, 10\} \quad (0/5)$	۳۹
خودآمد ۹۳	<p>(الف) <math>S = \{(1,1), (1,2), (1,3), (2,1), (2,2), (2,3), (3,1), (3,2), (3,3)\} \quad (0/25)</math></p> <p>(ب) <math>A = \{(2,1), (2,2), (2,3), (3,1)\} \quad (0/25)</math></p> <p>(ج) <math>B = \{(1,1)\} \quad (0/25)</math></p>	۴۰
خودآمد ۹۳	$S = \{(x,y) \in \mathbb{R}^2 \mid x^2 + y^2 \leq 4\} \quad (0/5)$	۴۱

٣٦	 $A \cap B$	٣٦
٣٧	الف) $S = \{ 1, 3, 5, 7, 9, 11 \}$ (٠/٥) ب) $A = \{ 3, 9 \}$ (٠/٥) ج) $B = \{ 7, 11 \}$ (٠/٥)	٣٧
٣٨	<p style="text-align: center;"><b>الف)</b> <math>S = \{ \underbrace{(ج, 1), (ج, 2), (ج, 3), (ج, 4), (ج, 5)}_{(٠/٥)}, \underbrace{(ج, 6), (ب, ج), (ب, ب)}_{(٠/٢٥)} \}</math></p> <p style="text-align: center;"><b>ب)</b> <math>A = \{ (ج, 2), (ج, 4), (ج, 6) \}</math> (٠/٧٥)      <math>B = \{ (ب, ج), (ب, ب) \}</math> (٠/٥)</p>	٣٨

تهیه کننده: احمد عرش کلاس سوم ریاضی دیستران امام حسین (ع) باوی