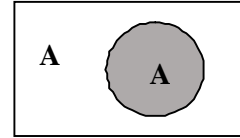


2016

1. $A \cap A' = \emptyset$, $A' \cup A = \Omega$, $P(A \cup A') = P(A) + P(A') \Leftrightarrow P(\Omega) = P(A) + P(A') \Leftrightarrow 1 = P(A) + P(A')$.
 $P(A') = 1 - P(A)$.



μ 7

2. $f(x) = x^2 - 5x + 6$, $f'(x) = 2x - 5$.
 $f'(x) > 0 \Rightarrow x > 2.5$, $f'(x) < 0 \Rightarrow x < 2.5$.

μ 4

3. $x_0 \in A$, $f(x) \geq f(x_0)$ for $x \in A$.

μ 4

4.)))))

μ 5x2

1. $f(x) = x^2 - 5x + 6$, $f'(x) = 2x - 5$.
 $x < 2 \Rightarrow f'(x) > 0 \Rightarrow f \nearrow (-\infty, 2]$.
 $2 < x < 3 \Rightarrow f'(x) < 0 \Rightarrow f \searrow [2, 3]$.
 $x > 3 \Rightarrow f'(x) > 0 \Rightarrow f \nearrow [3, +\infty)$.
 $f(2) = \frac{11}{3}$, $f(3) = \frac{7}{2}$.

x	$-\infty$	2	3	$+\infty$	
f'	+	0	-	0	+
f	\nearrow T.		\searrow T.		\nearrow

μ 9

2. $f(0) = -1$.

μ 8

1. $y = \lambda x + \beta$, $\lambda = f'(0) = 6$, $-1 = 6 \cdot 0 + \beta \Leftrightarrow \beta = -1$.

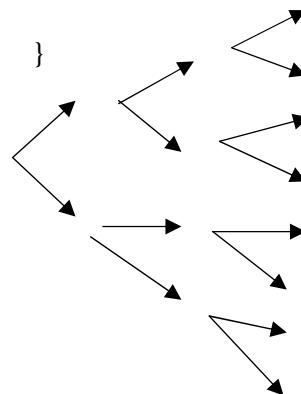
$y = 6x - 1$.

2. $y - f(0) = f'(0)x \Leftrightarrow y = 6x - 1$

B3. $\lim_{x \rightarrow -1} \frac{f'(x) - 12}{x + 1} = \lim_{x \rightarrow -1} \frac{x^2 - 5x + 6 - 12}{x + 1} = \lim_{x \rightarrow -1} \frac{x^2 - 5x - 6}{x + 1} = \lim_{x \rightarrow -1} \frac{(x+1)(x-6)}{x+1} = -7$

μ 8

1. $=\{ \dots \}$



μ 4

2. $\{ \dots \} = \{ \dots \}$

μ 6

3. $\dots = \dots$
 $\dots = \dots$
 $\dots = \dots$

μ 9

$\dots = \dots$

$\dots = \dots$

μ 6

1. x_1, x_2, x_3, x_4
 $x_1 = 8 + \frac{c}{2}, x_2 = x_1 + c = 8 + \frac{3c}{2}, 8 + \frac{3c}{2} = 14 \Leftrightarrow c = 4$

μ 4

2. $\bar{x} = 14 \Leftrightarrow \frac{20 \cdot 10 + 14 \cdot 15 + 18 \cdot 10 + 22v_4}{45 + v_4} = 14 \Leftrightarrow$
 $590 + 22v_4 = 630 + 14v_4 \Leftrightarrow 8v_4 = 40 \Leftrightarrow v_4 = 5$
 $c = 4$
 $[8,120), [12, 16), [16, 20), [20,24)$

$()$	μx_i	v_i
[8, 12)	10	20
[12,16)	14	15
[16,20)	18	10
[20,24)	22	5
		50

μ 6

3. \dots
 $\frac{3}{4} \dots$
 $9 \dots$
 $15 + 15 + 10 + 5 = 45$

μ 5

4. $s^2 = \frac{1}{50} [(10-14)^2 \cdot 20 + (14-14)^2 \cdot 15 + (18-14)^2 \cdot 10 + (22-14)^2 \cdot 5] = 16 \Leftrightarrow s = 4$

$CV_x = \frac{s_x}{\bar{x}} = \frac{4}{14} = \frac{2}{7} > \frac{1}{10}$

μ 6

5. $y_i, y_i = \frac{80}{100} x_i = 0,8x_i, \bar{y}_i = 0,8\bar{x}_i, s_y = 0,8s_x$

$CV_y = \frac{s_y}{\bar{y}} = \frac{0,8s_x}{0,8\bar{x}} = CV_x = \frac{2}{7} \approx 28\%$

μ 4