



KURS

RELACJE i FUNKCJE

Lekcja 1

Iloczyny kartezjańskie

Odpowiedzi do zadania domowego

Część 1: TEST

- 1) c
- 2) b
- 3) c
- 4) a
- 5) a
- 6) b
- 7) b
- 8) d
- 9) b
- 10) d

ODPOWIEDZI DO ZADAŃ

Zad. 1

- a) $\{(1,2), (1,3), (1,4), (1,5), (1,6), (1,7), (2,2), (2,3), (2,4), (2,5), (2,6), (2,7), (3,2), (3,3), (3,4), (3,5), (3,6), (3,7)\}$
- b) $\{(2,1), (3,1), (4,1), (5,1), (6,1), (7,1), (2,2), (3,2), (4,2), (5,2), (6,2), (7,2), (2,3), (3,3), (4,3), (5,3), (6,3), (7,3)\}$
- c) $\{(1,1), (1,2), (1,3), (2,1), (2,2), (2,3), (3,1), (3,2), (3,3)\}$
- d) $\{(1,2), (1,3), (1,4), (1,5), (1,6), (1,7), (2,3), (2,4), (2,5), (2,6), (2,7), (3,4), (3,5), (3,6), (3,7)\}$
- e) $\{(2,3)\}$
- f) $\{(2,2), (3,7)\}$
- g) $\{(5,7), (7,5), (6,7), (7,6), (6,6), (7,7)\}$
- h) $\{(1,3), (3,1), (2,2)\}$

Zad. 2

- a) $\{(a,b), (a,c), (a,d), (b,b), (b,c), (b,d), (c,b), (c,c), (c,d)\}$
- b) $\{(b,a), (c,a), (d,a), (b,b), (c,b), (d,b), (b,c), (c,c), (d,c)\}$
- c) $\{(b,b), (c,c)\}$

Zad. 3

- a) $(2,1), (3,2), (10,9), (20,19), (4,3)$
- b) $(4,2), (9,3), (7,7), (28,4), (1,1)$
- c) $(1,-1), (3,-2), (-6,-6), (0,-100), (-50,-11)$
- d) $(0,-2), (-2,-2), (-2,-1), (-2,100), (2,-2)$
- e) $(2,\sqrt{2}), (3,\sqrt{3}), (4,-2), (4,2), (9,3)$
- f) Ten zbiór nie ma żadnych elementów

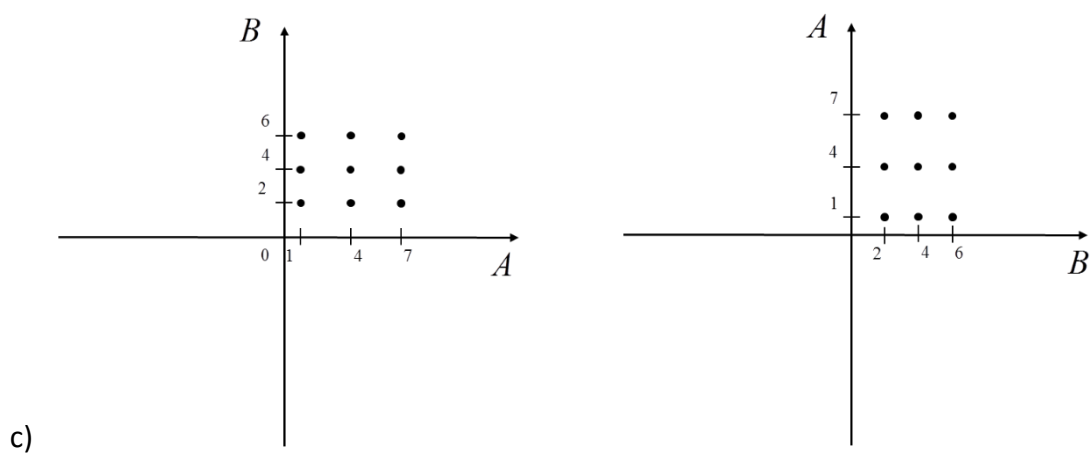
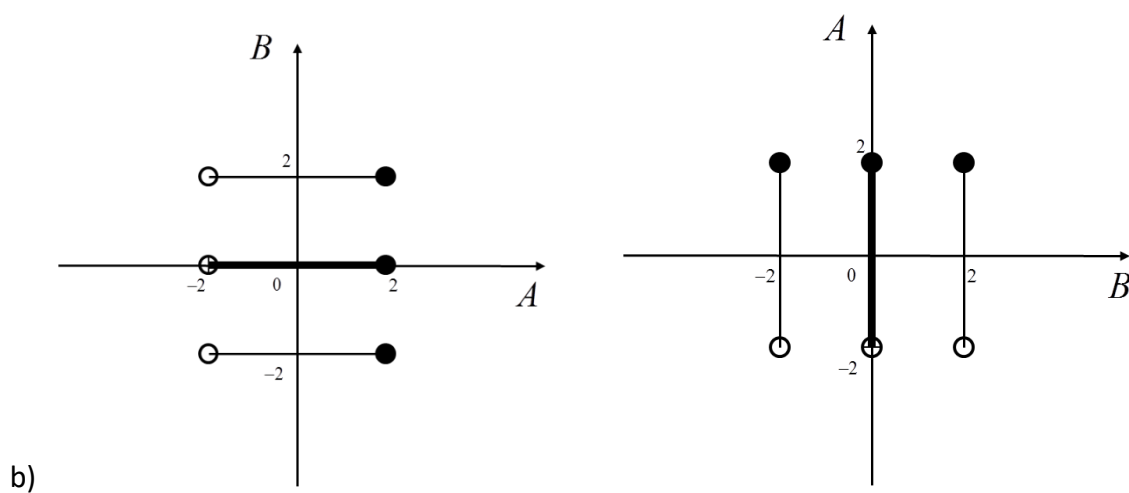
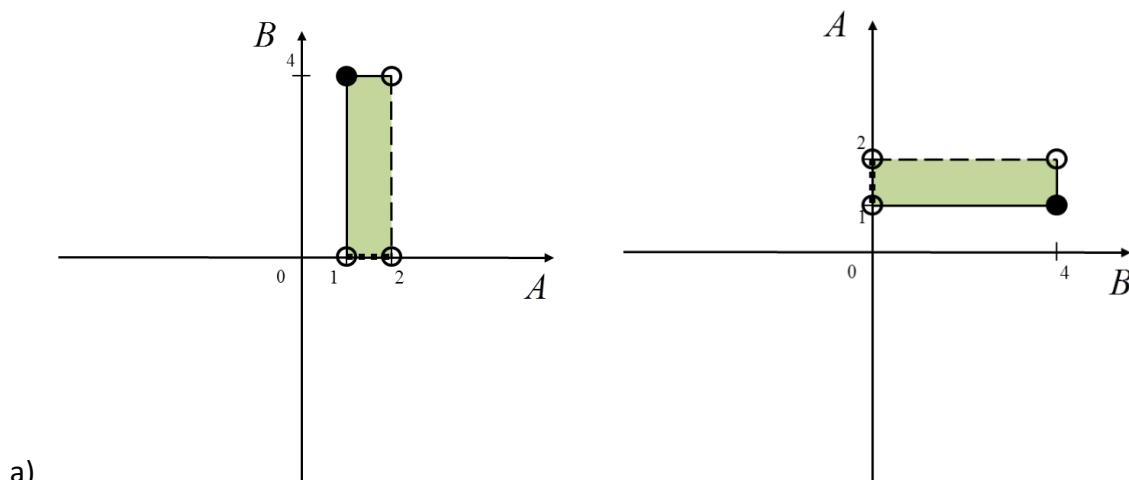
Zad. 4

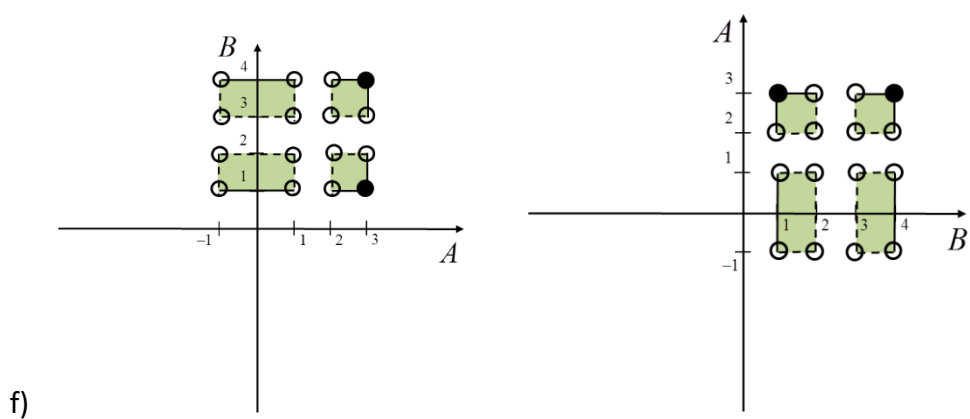
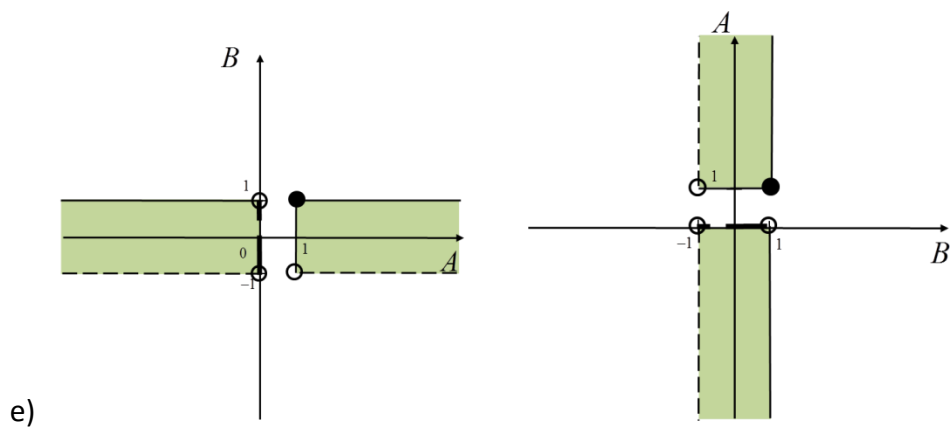
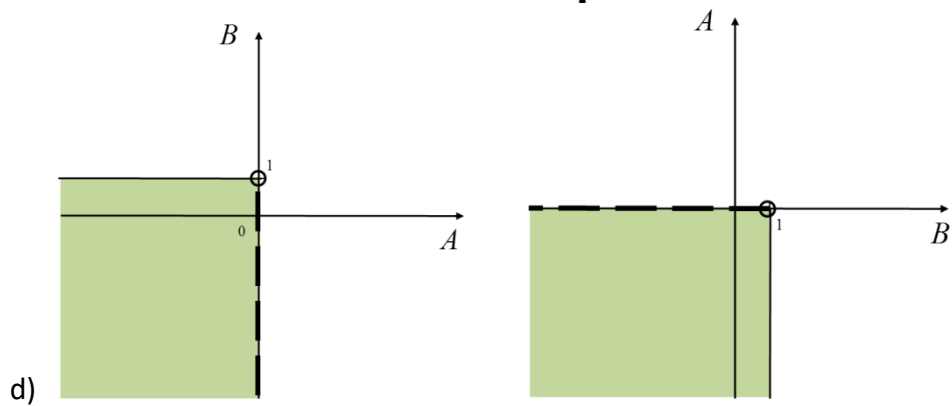
	a	b	c
1	☐	☐	☐
2	☐	☐	☐
3	☐	☐	☐
4	☐	☐	☐

Zad. 5

- $\{(a,(a,c)), (a,(a,d)), (a,(a,e)), (a,(b,c)), (a,(b,d)), (a,(b,e)),$
 a) $(b,(a,c)), (b,(a,d)), (b,(a,e)), (b,(b,c)), (b,(b,d)), (b,(b,e)),$
 $(c,(a,c)), (c,(a,d)), (c,(a,e)), (c,(b,c)), (c,(b,d)), (c,(b,e))\}$
 $\{((a,a),c), ((a,a),d), ((a,a),e), ((a,b),c), ((a,b),d), ((a,b),e),$
 b) $((b,a),c), ((b,a),d), ((b,a),e), ((b,b),c), ((b,b),d), ((b,b),e),$
 $((c,a),c), ((c,a),d), ((c,a),e), ((c,b),c), ((c,b),d), ((c,b),e)\}$
 $\{(a,a,c), (a,a,d), (a,a,e), (a,b,c), (a,b,d), (a,b,e),$
 c) $(b,a,c), (b,a,d), (b,a,e), (b,b,c), (b,b,d), (b,b,e),$
 $(c,a,c), (c,a,d), (c,a,e), (c,b,c), (c,b,d), (c,b,e)\}$
 d) $\{(a,c), (a,d), (a,e), (b,c), (b,d), (b,e), (c,c), (c,d), (c,e)\}$
 e) $\{(a,a,c), (a,a,d), (a,a,e), (a,b,c), (a,b,d), (a,b,e), (a,c,c), (a,c,d), (a,c,e),$
 $(b,a,c), (b,a,d), (b,a,e), (b,b,c), (b,b,d), (b,b,e), (b,c,c), (b,c,d), (b,c,e)\}$

Zad. 6





KONIEC