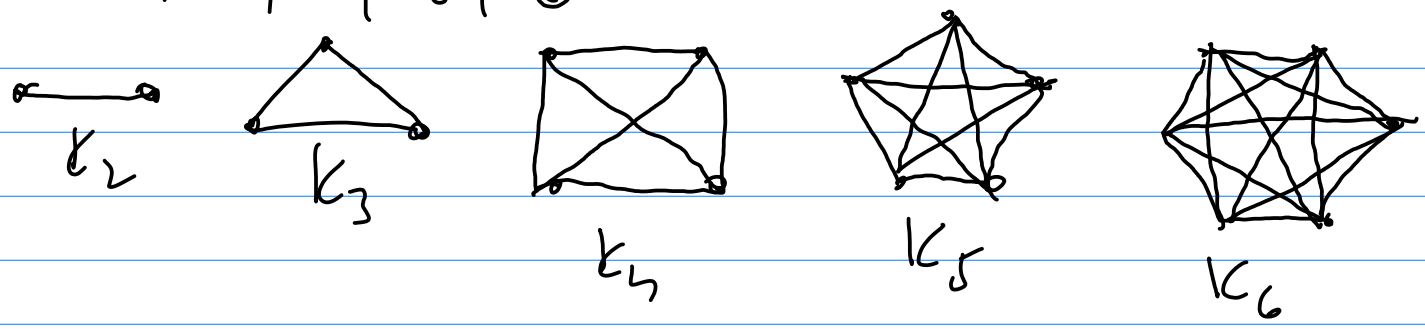
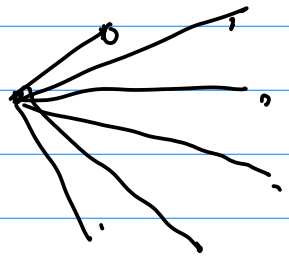
K_n $K_1, K_2, K_3, K_4, K_5, K_6$

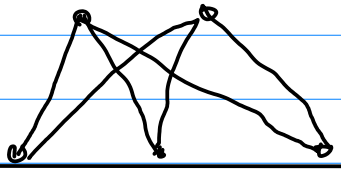


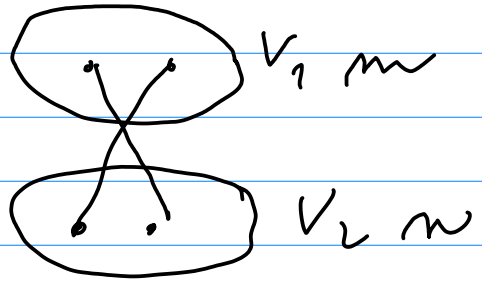
K_n, $n \in \mathbb{N}$ $\quad \frac{n(n-1)}{2} = \binom{n}{2}$ $\quad$ ~~$n=4$~~ $(n-1)!$



$K_{m,n}$ $\quad$ $K_{2,3}$

~~$m \cdot n$~~





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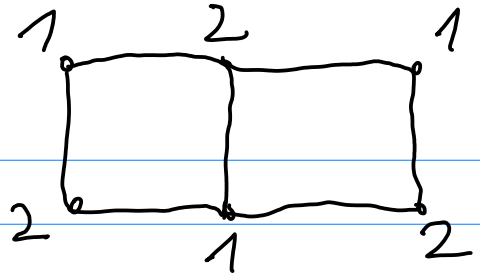
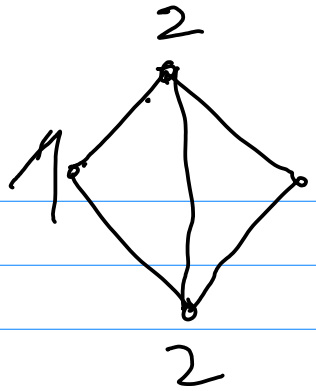
neexistuje pravidelný graf nepárneho stupňa s nepárnym počtom vrcholov

$$\sum_{i=1}^{n} st(v_i) = 2e$$

6 n vrch. st m

$$\sum_{i=1}^{n} st(v_i) = n \cdot m \text{ — nepárne} \\ = 2e \text{ — párne} \Big\} \text{ spor}$$





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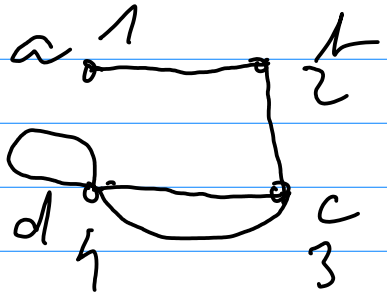
4 hrany 4 vrcholy stupne 1,2,3,4

$\sum st(v_i) = 1+2+3+4 = 10$

$2e = 2 \cdot 4 = 8$ $\quad 10 \neq 8$

---

4 vrcholy stupne 1,2,3,4



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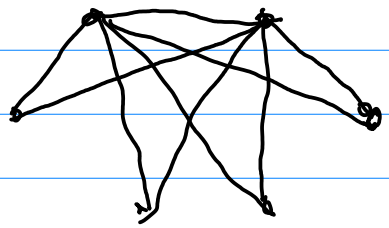
obyčajný graf 6 vrch. st. 1,3,3,4,5,5



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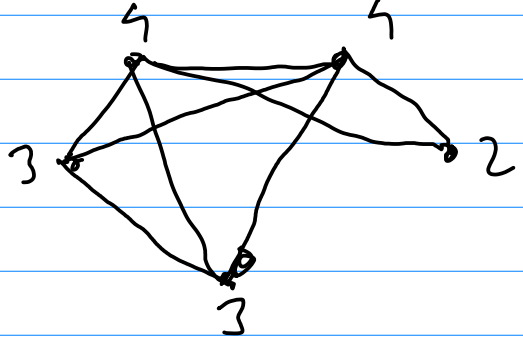
obyč. gr. 5 vrch st. 2,3,3,4,4



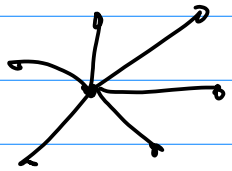
$r(G) = d(G)$

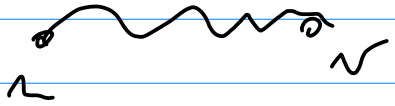
$r(G) = 0$
$d(G) = 0$

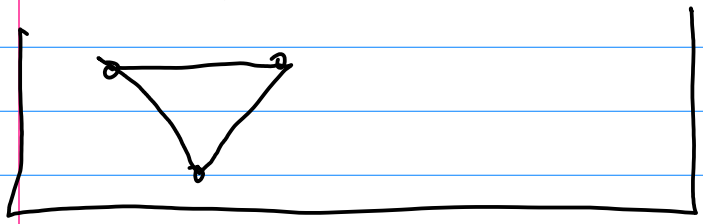
$r(G) = 1$
$d(G) = 1$

$d(G) = 2r(G)$

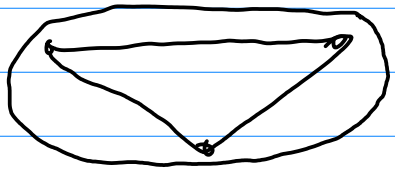
$r(G) = 1$
$d(G) = 2$

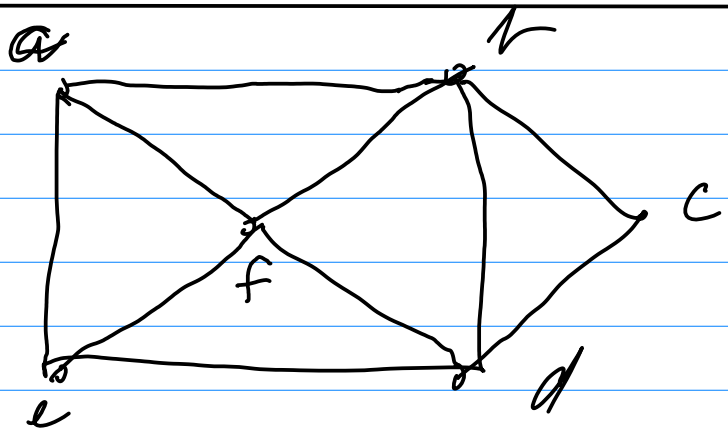


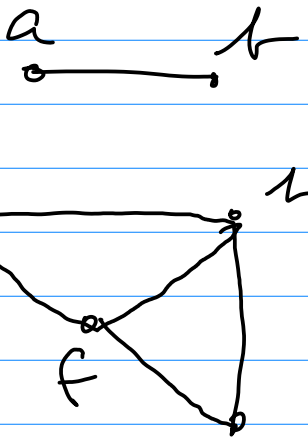




2





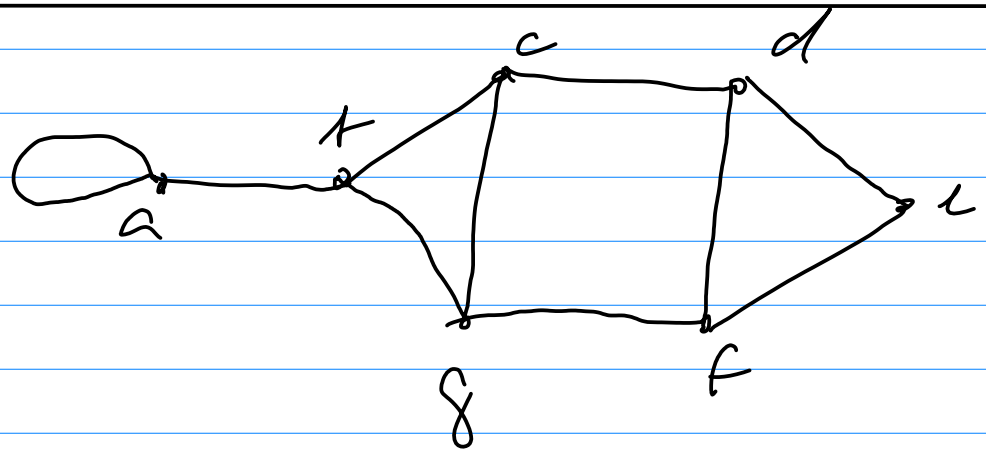


(a, v, c) (a, f, d, c, v)

(a, f, v, a)

(a, b, a)
(a, b, f, a)
(a, b, f) 3

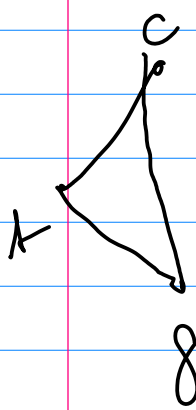
(a, b, c, d, b)
(a, b, d, e) 4

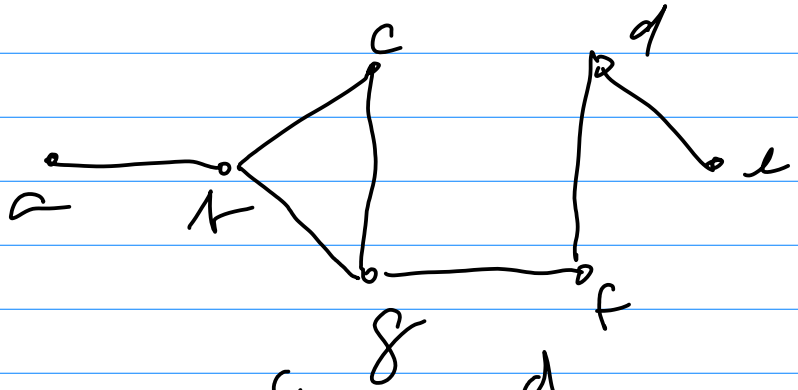


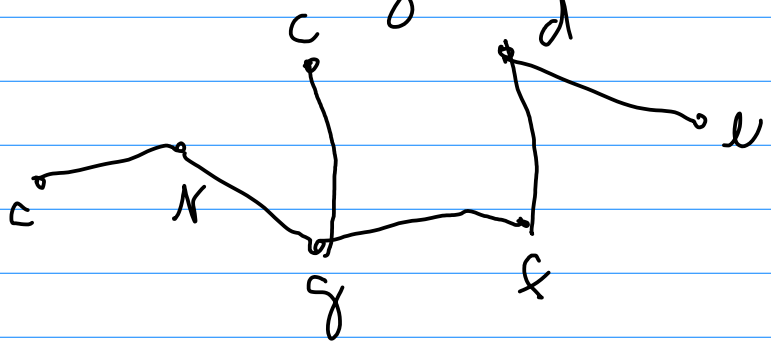
a - e

8

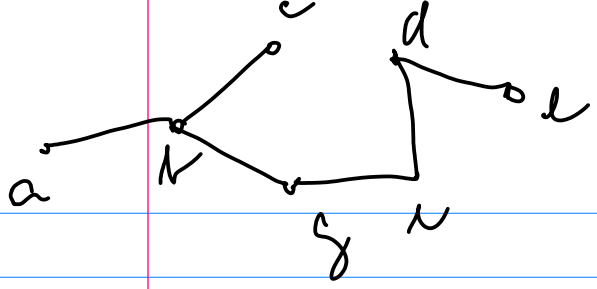
(a, b, c, d, e), (a, b, c, d, f, e)
(a, b, c, g, f, e), (a, b, c, g, f, d, e)
(a, b, g, f, e), (a, b, g, f, d, e)
(a, b, g, c, d, e), (a, b, g, c, d, f, e)

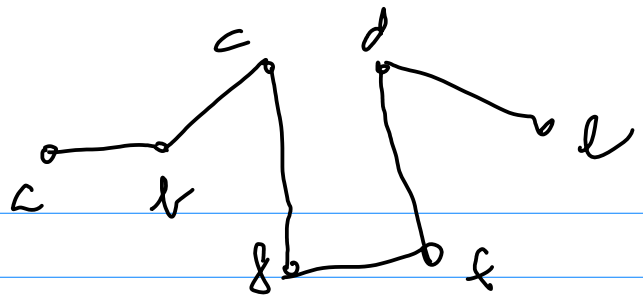






(b, c)
(b, g)
(c, g)


a
b
c
d
e
f
g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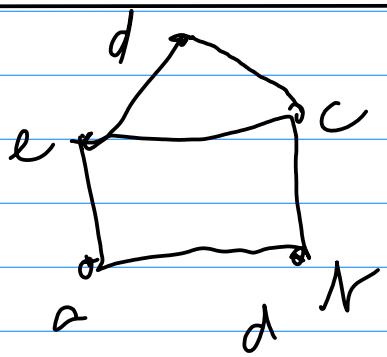
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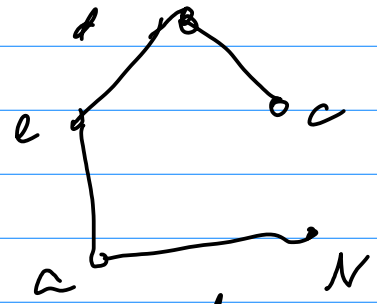
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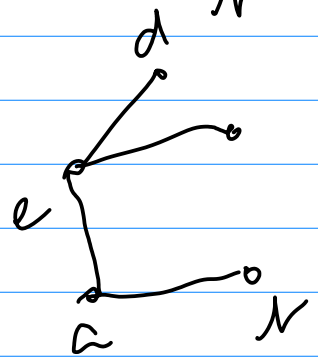
a
b
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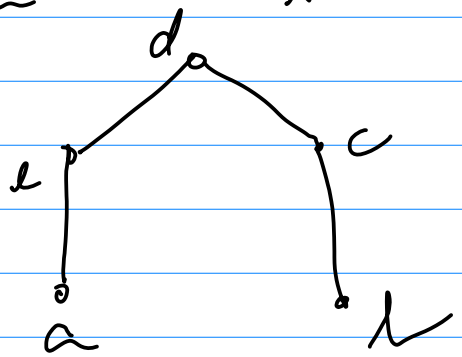
a
b
c
d
e