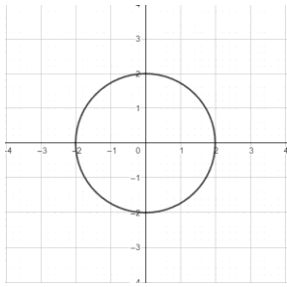
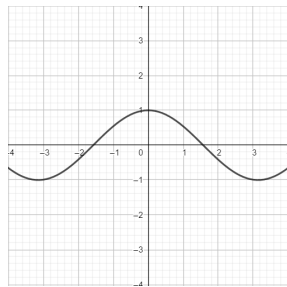


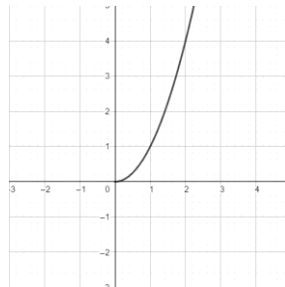
1. Zaokružiti slova ispod pridruživanja koja predstavljaju funkcije:



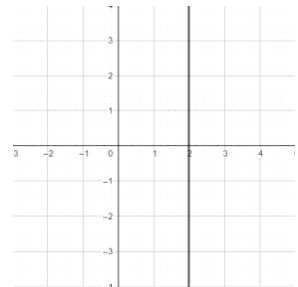
a)



b)



c)



d)

/1

2. Graf funkcije $f(x) = \frac{1}{x+2} + 2$ dobije se translacijom grafa funkcije $g(x) = \frac{1}{x}$ za:

a) 2 lijevo i 2 dolje

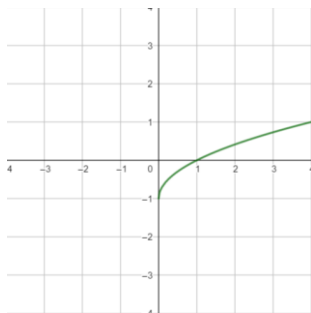
b) 2 desno i 2 dolje

c) 2 lijevo i 2 gore

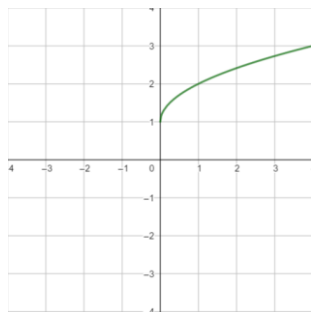
d) 2 desno i 2 gore

/1

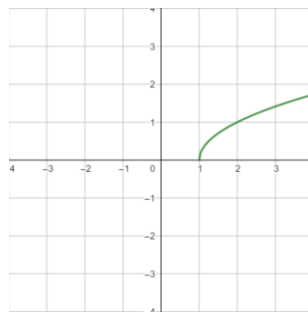
3. Graf funkcije $m(x) = \sqrt{x-1}$ prikazan je na slici:



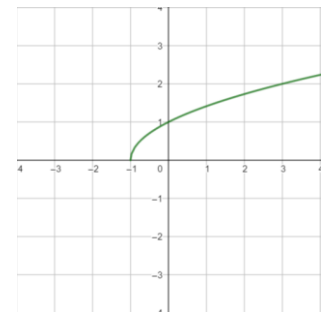
a)



b)



c)



d)

/1

4. Odrediti prirodnu domenu funkcije:

a) $f(x) = \frac{4x}{16 - 9x^2}$

b) $g(x) = \sqrt{3x + 4}$

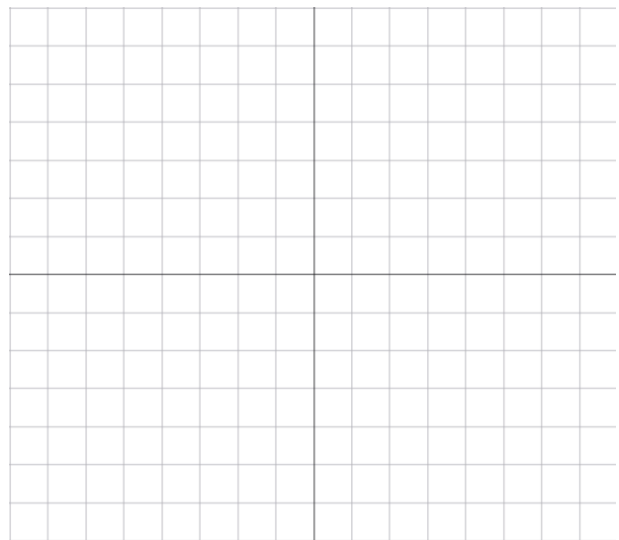
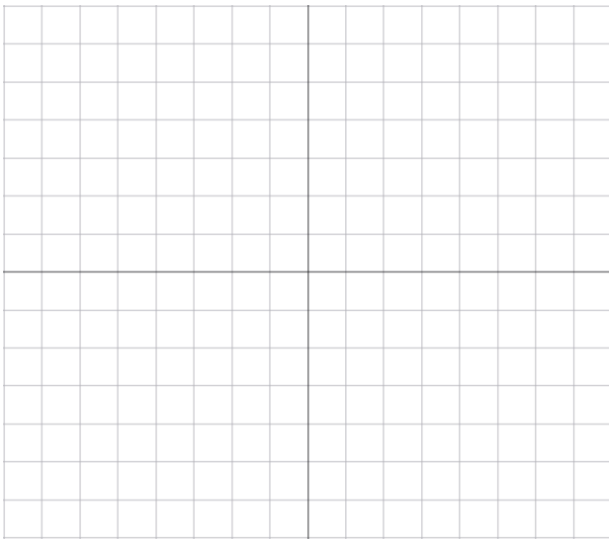
/2

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5. Nacrtati graf i odrediti sliku funkcije:

a) $h: [-1, 3] \rightarrow \mathbb{R}, h(x) = x - 2$

b) $k: \{-1, 0, 1\} \rightarrow \mathbb{R}, k(x) = x^2 + 3$

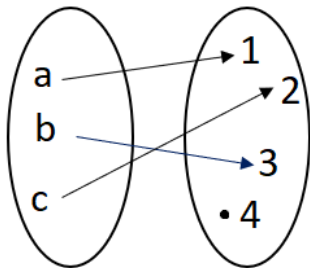


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6. Injektivnost, surjektivnost i bijektivnost funkcije

a) Je li funkcija prikazana na slici bijekcija?
Obrazložiti odgovor.



b) Računski dokazati injektivnost funkcije

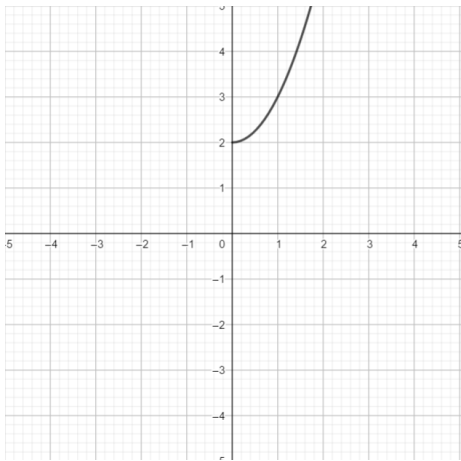
$$f(x) = \frac{5x - 3}{4}.$$

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7. Inverzna funkcija

a) Skicirati graf inverzne funkcije funkcije prikazane na slici.



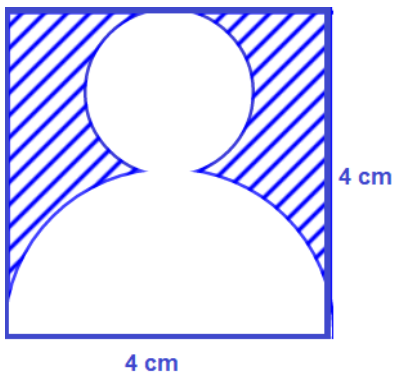
b) Računski odrediti inverznu funkciju funkcije

$$g(x) = \frac{3}{4} - 5x.$$

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8. Izračunati površinu osjenčanog dijela lika na slici.

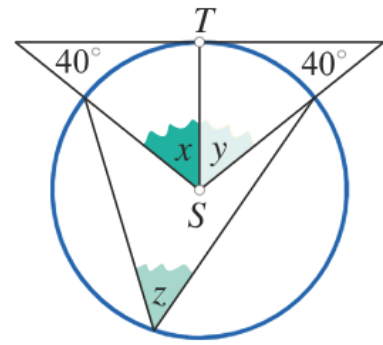
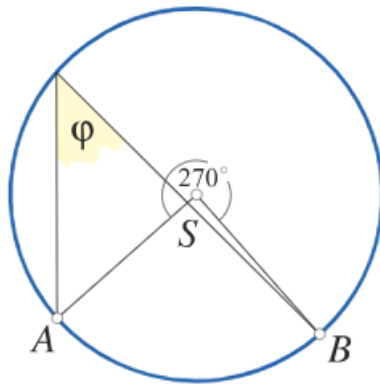
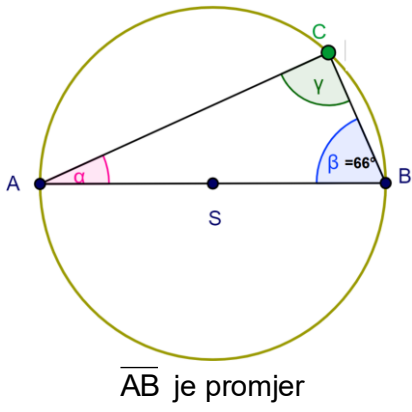


9. Površina kruga iznosi 256 cm^2 . Odrediti duljinu luka i površinu kružnog isječka kojem pripada središnji kut od 120° .

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10. Odrediti nepoznate kutove na danim slikama.

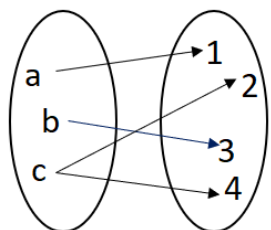


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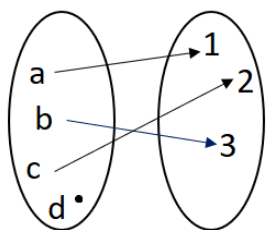
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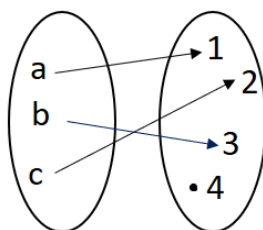
1. Zaokružiti slova ispod pridruživanja koja predstavljaju funkcije:



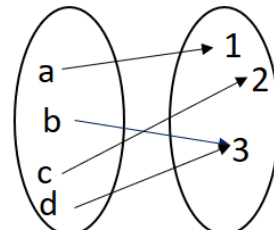
a)



b)



c)



d)

/1

2. Graf funkcije $f(x) = \sqrt{x-1} - 1$ dobije se translacijom grafa funkcije $g(x) = \sqrt{x}$ za:

a) 1 lijevo i 1 dolje

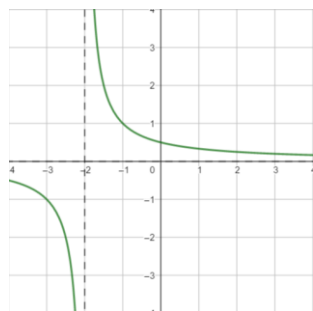
b) 1 desno i 1 dolje

c) 1 lijevo i 1 gore

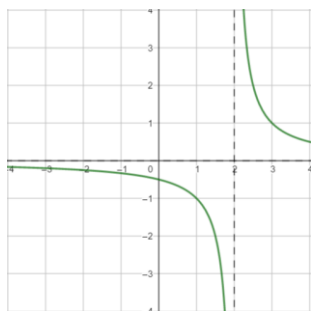
d) 1 desno i 1 gore

/1

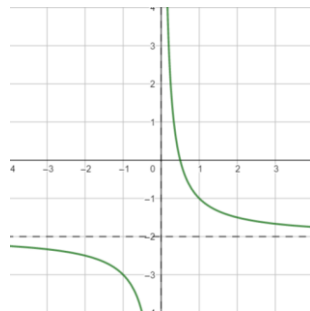
3. Graf funkcije $m(x) = \frac{1}{x+2}$ prikazan je na slici:



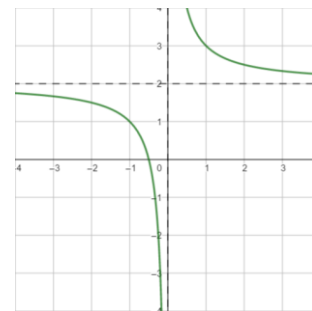
a)



b)



c)



d)

/1

4. Odrediti prirodnu domenu funkcije:

a) $f(x) = \frac{x+3}{5x-2x^2}$

b) $g(x) = \sqrt{2x+5}$

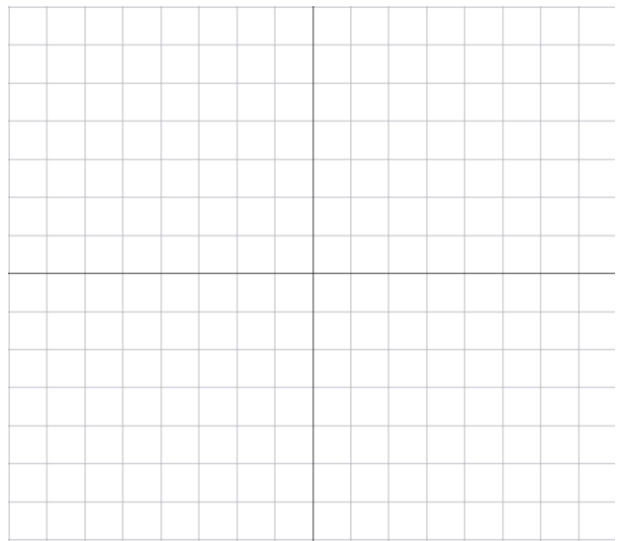
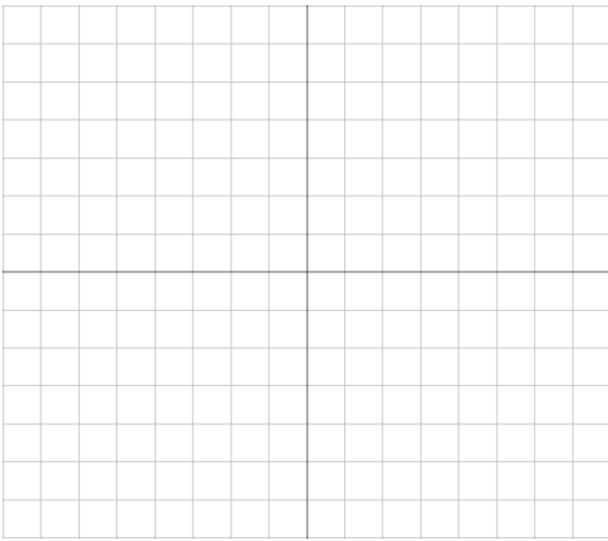
/2

/2

5. Nacrtati graf i odrediti sliku funkcije:

a) $h: [-4, 1] \rightarrow \mathbb{R}, h(x) = x + 3$

b) $k: \{-2, 0, 2\} \rightarrow \mathbb{R}, k(x) = x^2 - 2$

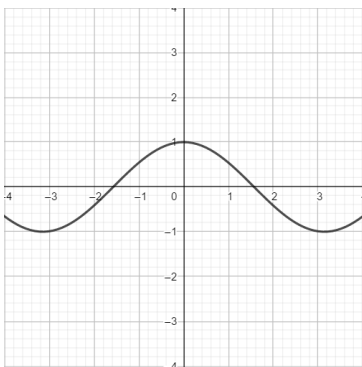


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/3

6. Injektivnost, surjektivnost i bijektivnost funkcije

a) Je li funkcija prikazana na slici bijekcija?
Obrazložiti odgovor.



b) Računski dokazati injektivnost funkcije

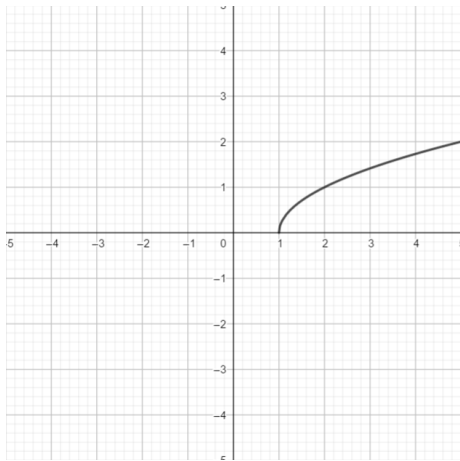
$$g(x) = \frac{3x - 4}{5}.$$

/2

/2

7. Inverzna funkcija

a) Skicirati graf inverzne funkcije funkcije prikazane na slici.



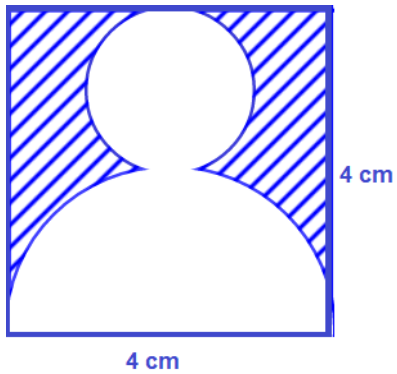
b) Računski odrediti inverznu funkciju funkcije

$$f(x) = \frac{4}{5} - 3x.$$

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8. Izračunati površinu osjenčanog dijela lika na slici.

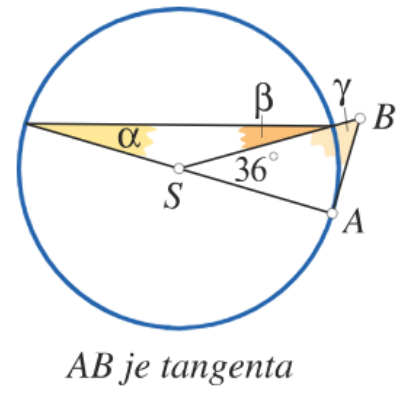
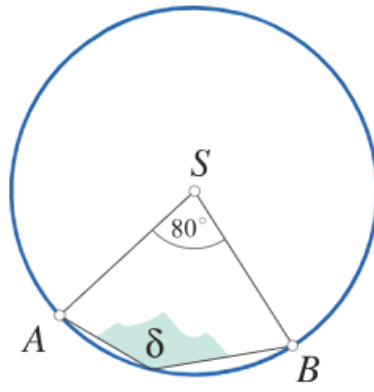
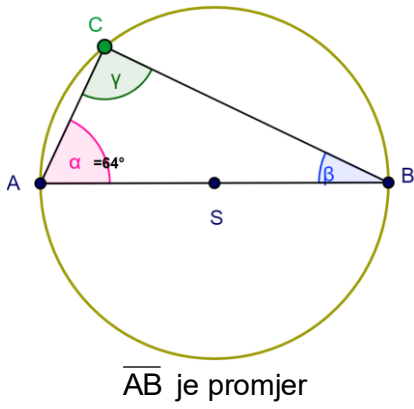


9. Površina kruga iznosi 225 cm^2 . Odrediti duljinu luka i površinu kružnog isječka kojem pripada središnji kut od 150° .

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10. Odrediti nepoznate kutove na danim slikama.



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