



Ināra Jermačenko

## Inversās trigonometriskās funkcijas (Skolēna materiāli)

Materiāls izstrādāts

ESF Darbības programmas 2007. - 2013.gadam “Cilvēkresursi un nodarbinātība”  
prioritātes 1.2. “Izglītība un prasmes”

pasākuma 1.2.1. “Profesionālās izglītības un vispārējo prasmju attīstība”  
aktivitātes 1.2.1.2. “Vispārējo zināšanu un prasmju uzlabošana”  
apakšaktivitātes 1.2.1.1.2. “Profesionālajā izglītībā iesaistīto pedagogu  
kompetences paaugstināšana”

Latvijas Universitātes realizētā projekta

“Profesionālajā izglītībā iesaistīto vispārīzglītojošo mācību priekšmetu pedagogu  
kompetences paaugstināšana”

(Vienošanās Nr.2009/0274/1DP/1.2.1.1.2/09/IPIA/VIAA/003,  
LU reģistrācijas Nr.ESS2009/88) īstenošanai.

Rīga, 2011.

# Saturs

- |  |   |
|--|---|
| 1. Inverso trigonometrisko funkciju definīcijas    | 3 |
| 2. Inverso trigonometrisko funkciju vērtības (I)   | 5 |
| 3. Inverso trigonometrisko funkciju vērtības (II)  | 7 |
| 4. Inverso trigonometrisko funkciju vērtības (III) | 9 |

# 1. Inverso trigonometrisko funkciju definīcijas

1) Funkcijas  $y = \arcsin x$  definīcijas apgabals ir

- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| (a) $[-1, 1]$            | (b) $(-\frac{\pi}{2}, \frac{\pi}{2})$ | (c) $[-\frac{\pi}{2}, \frac{\pi}{2}]$ |
| (d) $(-\infty, +\infty)$ | (e) $(0, \pi)$                        | (f) $[0, \pi]$                        |

2) Funkcijas  $y = \arctg x$  definīcijas apgabals ir

- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| (a) $[-1, 1]$            | (b) $(-\frac{\pi}{2}, \frac{\pi}{2})$ | (c) $[-\frac{\pi}{2}, \frac{\pi}{2}]$ |
| (d) $(-\infty, +\infty)$ | (e) $(0, \pi)$                        | (f) $[0, \pi]$                        |

3) Funkcijas  $y = \arccos x$  definīcijas apgabals ir

- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| (a) $[-1, 1]$            | (b) $(-\frac{\pi}{2}, \frac{\pi}{2})$ | (c) $[-\frac{\pi}{2}, \frac{\pi}{2}]$ |
| (d) $(-\infty, +\infty)$ | (e) $(0, \pi)$                        | (f) $[0, \pi]$                        |

4) Funkcijas  $y = \text{arcctg } x$  definīcijas apgabals ir

- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| (a) $[-1, 1]$            | (b) $(-\frac{\pi}{2}, \frac{\pi}{2})$ | (c) $[-\frac{\pi}{2}, \frac{\pi}{2}]$ |
| (d) $(-\infty, +\infty)$ | (e) $(0, \pi)$                        | (f) $[0, \pi]$                        |

5) Funkcijas  $y = \arcsin x$  vērtību apgabals ir

- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| (a) $[-1, 1]$            | (b) $(-\frac{\pi}{2}, \frac{\pi}{2})$ | (c) $[-\frac{\pi}{2}, \frac{\pi}{2}]$ |
| (d) $(-\infty, +\infty)$ | (e) $(0, \pi)$                        | (f) $[0, \pi]$                        |

6) Funkcijas  $y = \arctg x$  vērtību apgabals ir

- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| (a) $[-1, 1]$            | (b) $(-\frac{\pi}{2}, \frac{\pi}{2})$ | (c) $[-\frac{\pi}{2}, \frac{\pi}{2}]$ |
| (d) $(-\infty, +\infty)$ | (e) $(0, \pi)$                        | (f) $[0, \pi]$                        |

7) Funkcijas  $y = \arccos x$  vērtību apgabals ir

- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| (a) $[-1, 1]$            | (b) $(-\frac{\pi}{2}, \frac{\pi}{2})$ | (c) $[-\frac{\pi}{2}, \frac{\pi}{2}]$ |
| (d) $(-\infty, +\infty)$ | (e) $(0, \pi)$                        | (f) $[0, \pi]$                        |

8) Funkcijas  $y = \text{arcctg } x$  vērtību apgabals ir

- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| (a) $[-1, 1]$            | (b) $(-\frac{\pi}{2}, \frac{\pi}{2})$ | (c) $[-\frac{\pi}{2}, \frac{\pi}{2}]$ |
| (d) $(-\infty, +\infty)$ | (e) $(0, \pi)$                        | (f) $[0, \pi]$                        |

## 2. Inverso trigonometriskā funkciju vērtības (I)

Sākt!

1.  $\operatorname{arctg} 0 =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

2.  $\operatorname{arcsin} 1 =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

3.  $\operatorname{arccos} \left( -\frac{\sqrt{2}}{2} \right) =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

4.  $\operatorname{arctg} 1 =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

5.  $\operatorname{arccos} 1 =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

$$6. \arcsin\left(-\frac{\sqrt{2}}{2}\right) =$$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

$$7. \operatorname{arctg} 0 =$$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

$$8. \arccos 0 =$$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

$$9. \operatorname{arctg}(-\sqrt{3}) =$$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

$$10. \arcsin\left(-\frac{1}{2}\right) =$$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad -\frac{\pi}{4} \quad \frac{\pi}{4} \quad -\frac{\pi}{6} \quad \frac{\pi}{2} \quad 0$$

Beigt!

### 3. Inverso trigonometriskā funkciju vērtības (II)

Sākt!

1.  $\arcsin 0 =$

$$-\frac{\pi}{3} \quad -\frac{\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

2.  $\arctg \frac{\sqrt{3}}{3} =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

3.  $\arccos \frac{1}{2} =$

$$-\frac{\pi}{3} \quad -\frac{\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

4.  $\text{arcctg}(-1) =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

5.  $\text{arcctg} 1 =$

$$-\frac{\pi}{3} \quad -\frac{\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

6.  $\arccos \frac{\sqrt{2}}{2} =$

$$-\frac{\pi}{3} \quad -\frac{\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

7.  $\arcsin \left(-\frac{\sqrt{3}}{2}\right) =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

8.  $\operatorname{arctg}(-1) =$

$$-\frac{\pi}{3} \quad -\frac{\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

9.  $\operatorname{arcctg} \frac{\sqrt{3}}{3} =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

10.  $\arccos 1 =$

$$-\frac{\pi}{3} \quad \frac{3\pi}{4} \quad 0 \quad \frac{\pi}{6} \quad \frac{\pi}{4} \quad \frac{\pi}{3}$$

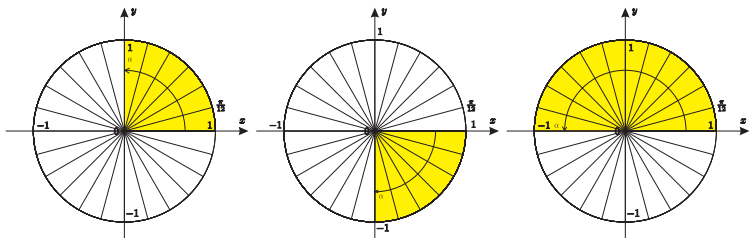
Beigt!



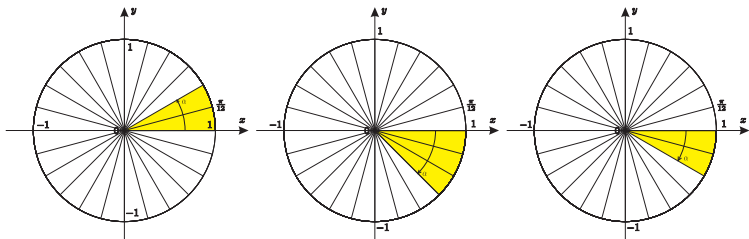
## 4. Inverso trigonometriskā funkciju vērtības (III)

Sākt!

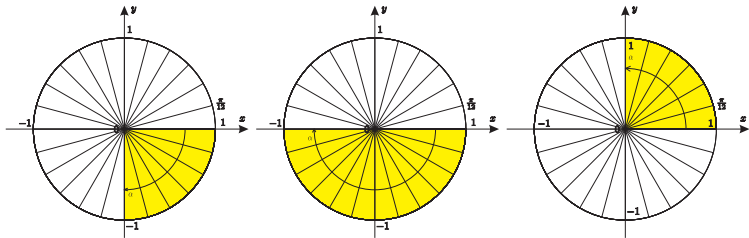
1.  $\arccos 0 =$



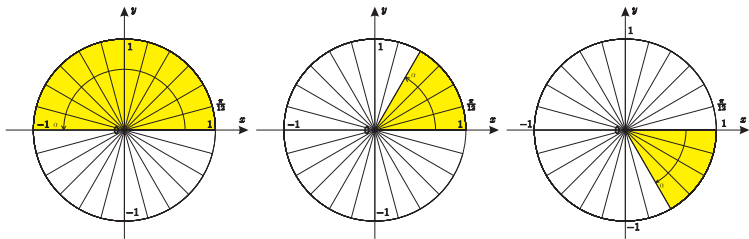
$$2. \arcsin\left(-\frac{1}{2}\right) =$$



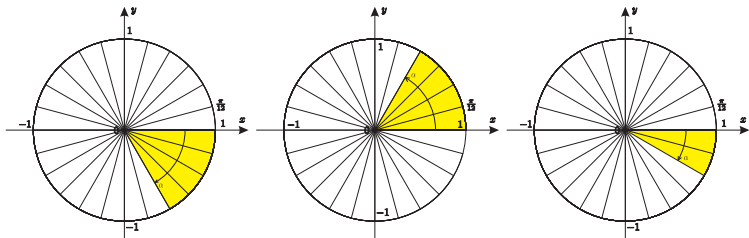
3.  $\text{arcctg } 0 =$



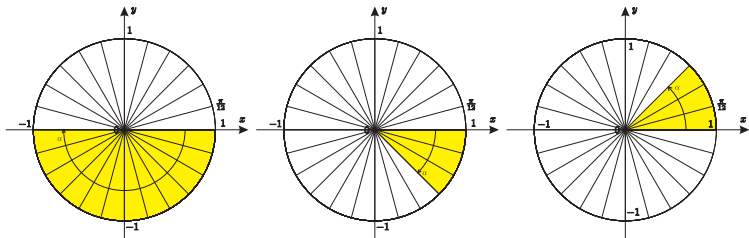
$$4. \arccos \frac{1}{2} =$$



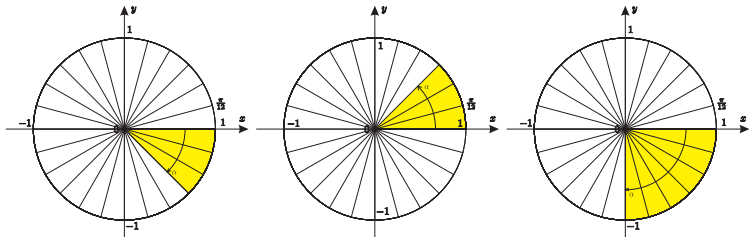
$$5. \arcsin\left(-\frac{\sqrt{3}}{2}\right) =$$



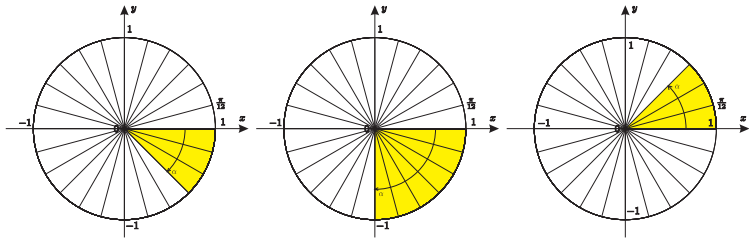
6.  $\arctg(-1) =$



7.  $\text{arcctg } 1 =$

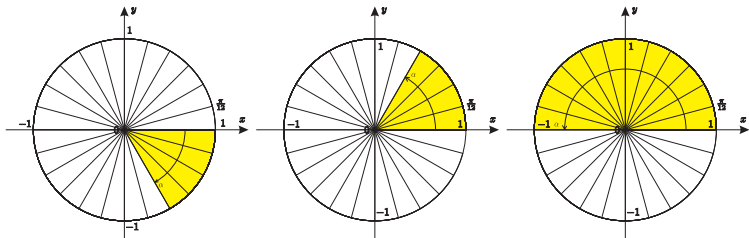


$$8. \arccos \frac{\sqrt{2}}{2} =$$

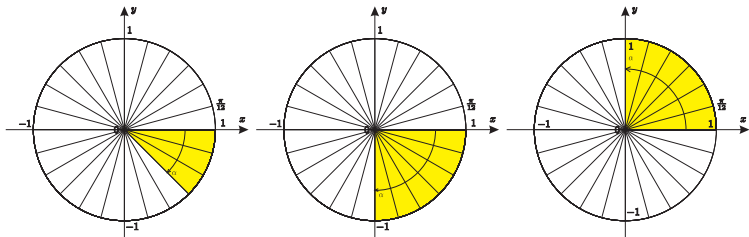




$$9. \operatorname{arctg}(-\sqrt{3}) =$$



10.  $\arcsin(-1) =$



Beigt!