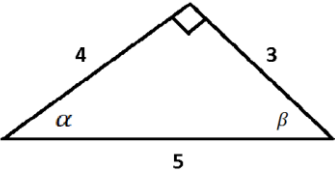
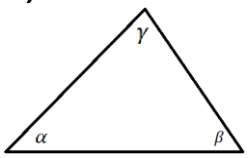
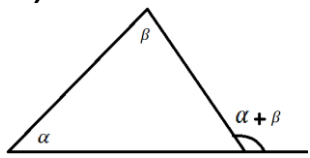
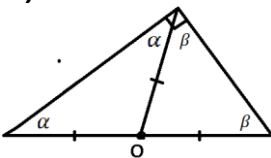
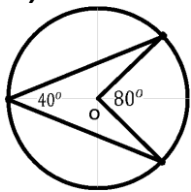
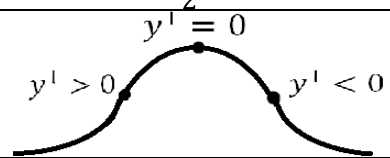


СПРАВОЧНИК ЕГЭ ПО МАТЕМАТИКЕ

1) $\frac{1}{2} = 0.5$; $\frac{1}{4} = 0.25$; $\frac{3}{4} = 0.75$; $\frac{1}{5} = 0.2$ $\frac{1}{8} = 0.125$; $\frac{3}{8} = 0.375$; $\frac{5}{8} = 0.625$; $\frac{7}{8} = 0.875$;			
2) $1\% = 0.01$; $10\% = 0,1$; $20\% = 0,2$; $50\% = 0,5$; $34\% = 0,34$; $100\% = 1$; $112\% = 1,12$			
3) $a^x \cdot a^y = a^{x+y}$ $a^x : a^y = a^{x-y}$ $(a^y)^x = a^{xy}$ $(a \cdot b)^x = b^x \cdot a^x$ $(\frac{a}{b})^x = \frac{a^x}{b^x}$	4) $\sqrt{a} \cdot \sqrt{b} = \sqrt{ab}$ $\frac{\sqrt{a}}{\sqrt{b}} = \sqrt{\frac{a}{b}}$; $\sqrt{a} \cdot \sqrt{a} = a$ $\sqrt{7} \cdot \sqrt{7} = 7$; $\frac{3}{\sqrt{3}} = \sqrt{3}$	5) $\log_a b = x \leftrightarrow b = a^x$ $a^{\log_a x} = x$ $\log_a x + \log_a y = \log_a(xy)$ $\log_a x - \log_a y = \log_a \frac{x}{y}$ $k \cdot \log_a x = \log_a(x^k)$; $\log_a b = \frac{\log_c b}{\log_c a}$	6) $2^0 = 1$; $2^2 = 4$ $3^2 = 9$; $3^3 = 27$; $3^4 = 81$; $a^0 = 1$ $\log_a a = 1$ $\log_a 1 = 0$ $\log_2 8 = 3$
7) $ax^2 + bx + c = 0$; $D = b^2 - 4ac$; $x_{1,2} = \frac{-b \pm \sqrt{D}}{2a}$; $ax^2 + bx + c = a(x - x_1)(x - x_2)$			
8) $\sin \alpha = \frac{\text{прот. катет}}{\text{гипотенуза}}$; $\cos \alpha = \frac{\text{прилеж. катет}}{\text{гипотенуза}}$; $\tan \alpha = \frac{\text{прот. катет}}{\text{прилеж. катет}}$			
9) 	$\sin \alpha = \frac{3}{5} = 0,6$ $\cos \alpha = \frac{4}{5} = 0,8$	$\cos \beta = \sin \alpha = 0,6$ $\sin \beta = \cos \alpha = 0,8$ $\operatorname{tg} \alpha = \frac{3}{4} = 0,75$ $\operatorname{ctg} \beta = \operatorname{tg} \alpha = 0,75$	10) $c^2 = a^2 + b^2$ $5^2 = 3^2 + 4^2$ (Теор. Пифагора)
11) 	12) 	13) 	14) 
15) $S_{\text{треуг.}} = \frac{a \cdot h}{2}$; $S_{\text{трапец.}} = \frac{a + b}{2} \cdot h$; $S_{\text{круга}} = \pi R^2$			
16) $\sin^2 \alpha + \cos^2 \alpha = 1$ $\sin \alpha = \pm \sqrt{1 - \cos^2 \alpha}$ $\cos \alpha = \pm \sqrt{1 - \sin^2 \alpha}$	$\sin 2\alpha = 2 \sin \alpha \cdot \cos \alpha$ $\cos 2\alpha = \cos^2 \alpha - \sin^2 \alpha$ $\operatorname{tg} \alpha = \frac{\sin \alpha}{\cos \alpha}$	17) $\sin 30^\circ = \cos 60^\circ = \frac{1}{2}$ $\operatorname{tg} 30^\circ = \frac{1}{3}$ $\sin 45^\circ = \cos 45^\circ = \frac{\sqrt{2}}{2}$ $\operatorname{tg} 45^\circ = 1$ $\sin 60^\circ = \cos 30^\circ = \frac{\sqrt{3}}{2}$ $\operatorname{tg} 60^\circ = \sqrt{3}$	
18) $f'(x_0) = \operatorname{tg} \alpha$ $f' > 0 \Leftrightarrow f$ — возрастает $f'(x_0) = k$ — угл. коэф. касат. $f' < 0 \Leftrightarrow f$ — убывает			
19) $c' = 0$; $x' = 1$; $(x^2)' = 2x$; $(x^3)' = 3x^2$; $(e^x)' = e^x$; $(\sin x)' = \cos x$; $(\cos x)' = -\sin x$; $(\sqrt{x})' = \frac{1}{2\sqrt{x}}$			
20) $P(A) = \frac{m}{n}$	21) $d^2 = a^2 + b^2 + c^2$	22) $l_2 = k \cdot l_1 \Rightarrow P_2 = k \cdot P_1$; $S_2 = k^2 \cdot S_1$; $V_2 = k^3 \cdot V_1$	
23) $\cos x = a$ $x = \pm \arccos a + 2\pi n, n \in Z$		$\sin x = a$ $x = (-1)^k \arcsin a + \pi k, k \in Z$	
$\operatorname{tg} x = a$ $x = \operatorname{arctg} a + \pi n, n \in Z$			
24) $V_{\text{куба}} = a^3$; $V_{\text{пар-да}} = a \cdot b \cdot c$; $V_{\text{призмы}} = S_{\text{осн}} \cdot h$; $V_{\text{цил}} = \pi R^2 h$; $V_{\text{кон}} = \frac{1}{3} \pi R^2 h$; $V_{\text{шара}} = \frac{4}{3} \pi R^3$			