## Deckblatt für die Abgabe der Übungsaufgaben IngMathC2

Name, Vorname: Schmitt, Niklas

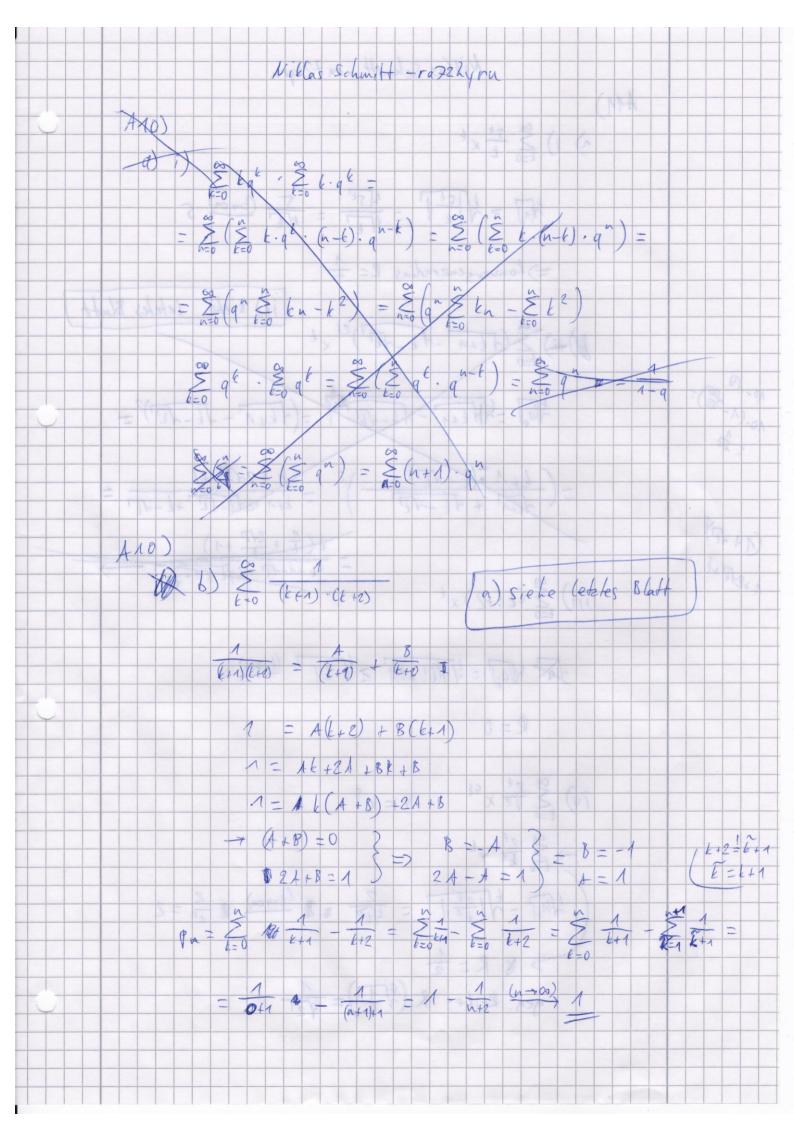
StudOn-Kennung: <u>ra72hyru</u>

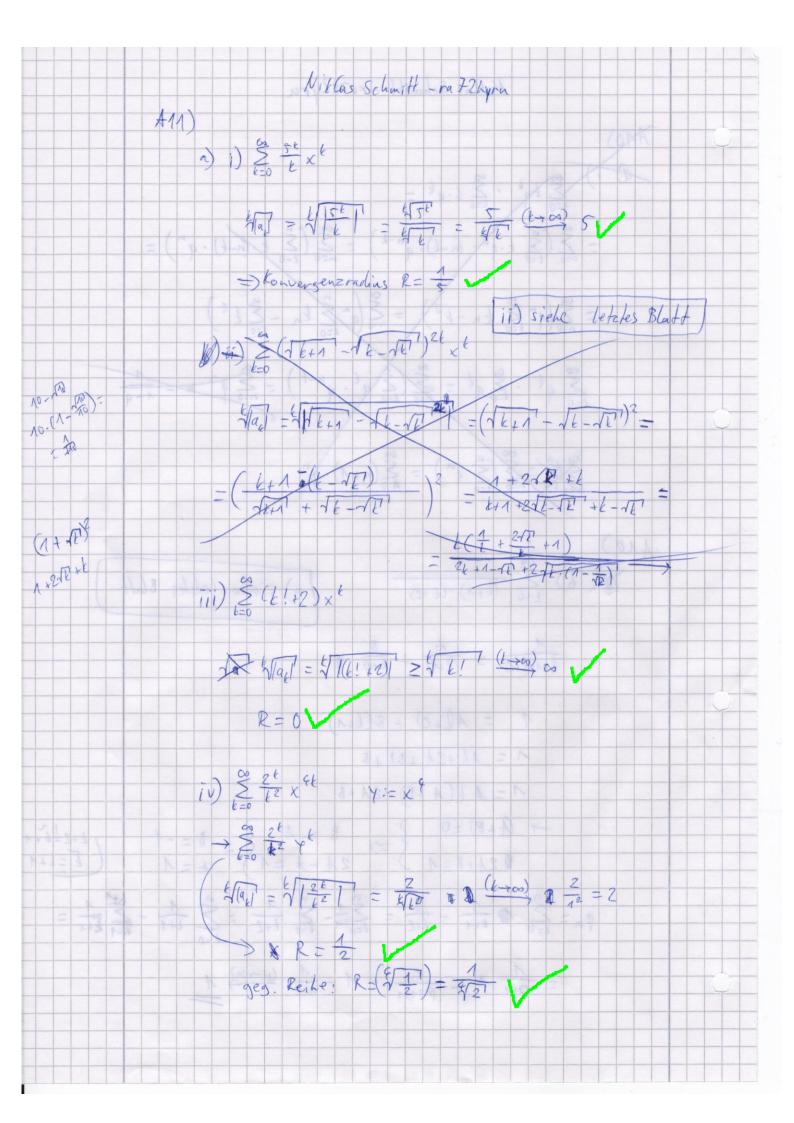
Blatt-Nummer: 04

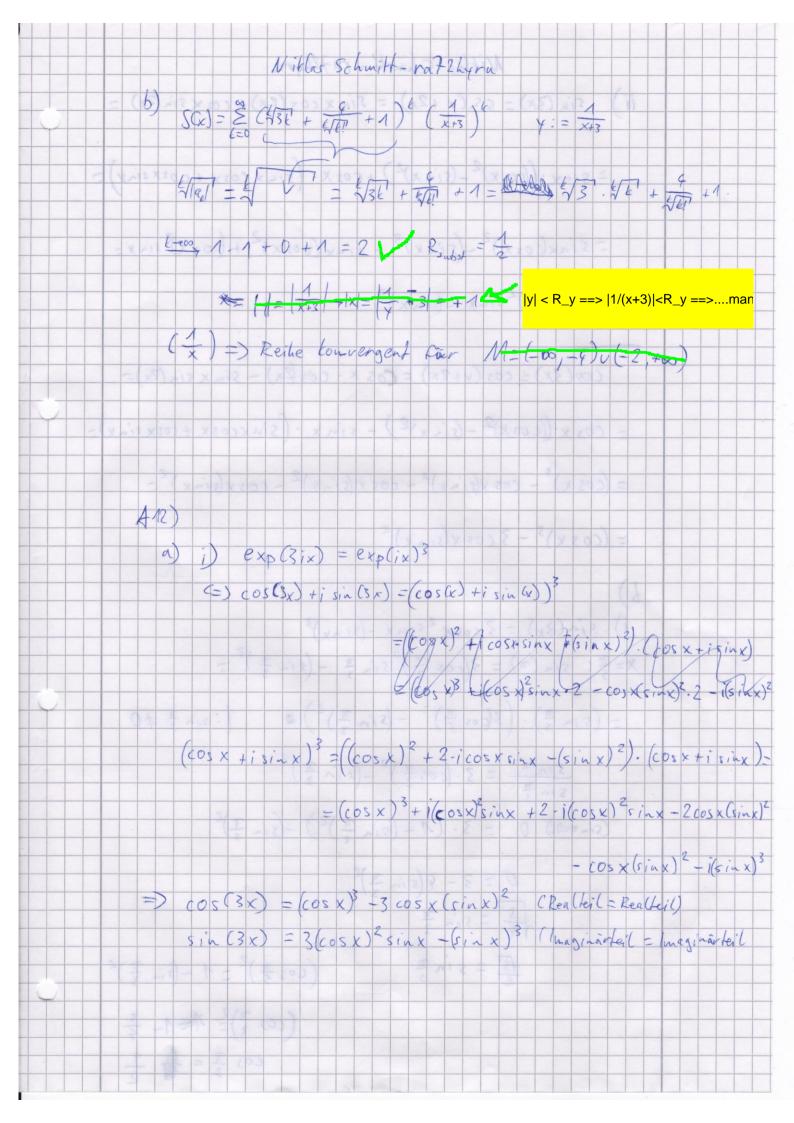
Übungsgruppen-Nr: <u>07</u>

Die folgenden Aufgaben gebe ich zur Korrektur frei:

9/10\*30 = 27







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Nillas Schmitt - ra72hvou
11) sin (3x) = sin (x + 2x) = sin x cos (2x) + cos x sin (2x) =
    = sinx. ((cos x)2-(sinx)2)+cos x. (sinxeosx+cosxsinx)=
    = 5 inx(cosx)2 - (5 inx)3 + 5 inx (cosx)2 + (cosx)2 sinx=
    = 3(805X) 2 sinx - (sinx) 3
    cos(3x) = cos(x+2x) = cos x · cos(2x) - sin x sin(2x)=
 - cos x · ((cosx)2 - (sinx)2) - sinx · (sinxcosx + cosx sinx)=
 = (cos x) 3 - cos x(sinx) 2 - cos x(sinx) 2 - cos x(sinx) 2-
 = (cosx)3 - 3 cosx(sinx)2
1) sia(3x) = 3 cosx 2 sinx -(sinx)3
X = \frac{\pi}{3} \sin(\pi) = \frac{3(\cos \frac{\pi}{3})^2 \sin \frac{\pi}{3} - (\sin \frac{\pi}{3})^3 =
 = (s_{1}, \frac{\pi}{3}) \cdot (3(c_{0}, \frac{\pi}{3})^{2} - (s_{1}, \frac{\pi}{3})^{2}) 
        sin = = 3-(cos =)2-(sin =)2
   (sin =0:) 0 = 3. (1 - (sin = )2) - (sin = 3)2
              0=3-4(sin =)2
             3 = sin 3
             √3 = 5 in ₹
                                       (405 = ) = 1 - (sin = ) =
                                          (cos 3)= 1-3
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