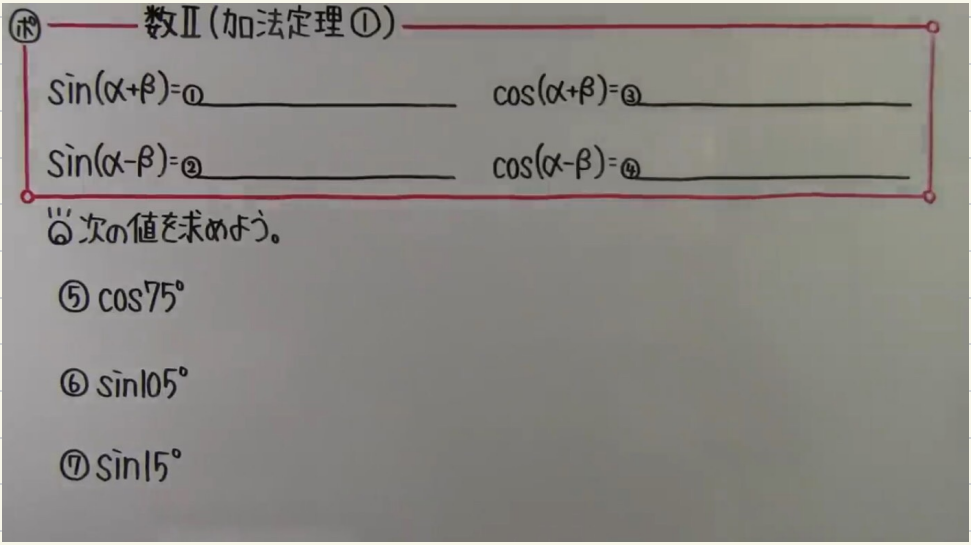
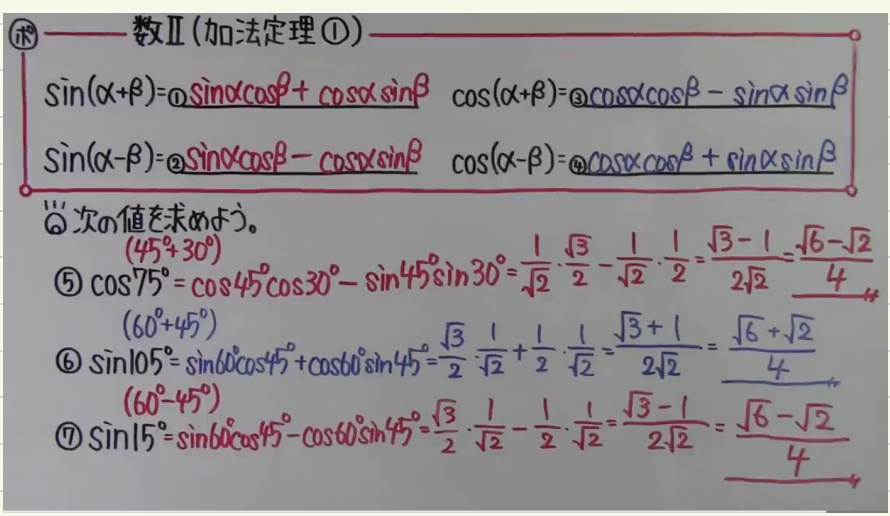
加法定理1


数Ⅱ(加法定理①)
sin(α+β)=①
cos(α+β)=③
sin(α-β)=②
cos(α-β)=④
次の値を求めよう。
⑤ cos75°
⑥ sin105°
⑦ sin15°


数Ⅱ(加法定理①)
sin(α+β)=① sinαcosβ+cosαsinβ
cos(α+β)=③ cosαcosβ−sinαsinβ
sin(α-β)=② sinαcosβ−cosαsinβ
cos(α-β)=④ cosαcosβ+sinαsinβ
次の値を求めよう。
(45°+30°)
⑤ cos75°=cos45°cos30°−sin45°sin30°=1/√2・√3/2−1/√2・1/2=(√3−1)/2√2=(√6−√2)/4
(60°+45°)
⑥ sin105°=sin60°cos45°+cos60°sin45°=√3/2・1/√2+1/2・1/√2=(√3+1)/2√2=(√6+√2)/4
(60°−45°)
⑦ sin15°=sin60°cos45°−cos60°sin45°=√3/2・1/√2−1/2・1/√2=(√3−1)/2√2=(√6−√2)/4