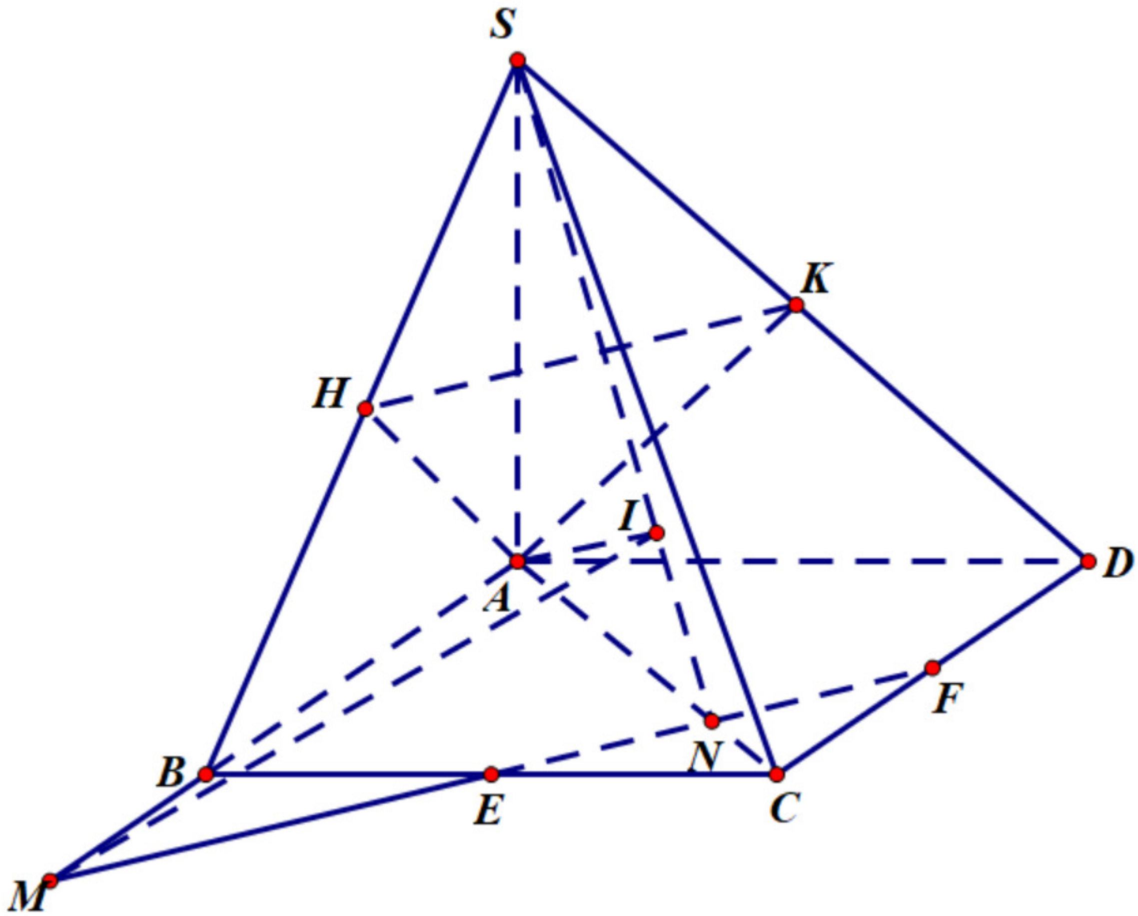
ĐÁP ÁN & BIỂU ĐIỂM TOÁN 11 – KTGHK2 (2018−2019)

Bài 1a:	**1.5đ**
$\lim\limits_{x\to -1}\dfrac{(2x+1)^2-x^2}{x^3+3x^2-4x-6}=\lim\limits_{x\to -1}\dfrac{(x+1)(3x+1)}{(x+1)(x^2+2x-6)}=\lim\limits_{x\to -1}\dfrac{3x+1}{x^2+2x-6}=\dfrac{2}{7}$	0.5 x 3
Bài 1b:	**1.5đ**
$\lim\limits_{x\to 3}\dfrac{2\sqrt{4x-3}-3\sqrt{x+1}}{x-3}=\lim\limits_{x\to 3}\dfrac{7(x-3)}{(x-3)\left(2\sqrt{4x-3}+3\sqrt{x+1}\right)}=\lim\limits_{x\to 3}\dfrac{7}{2\sqrt{4x-3}+3\sqrt{x+1}}=\dfrac{7}{12}$	0.5 x 3
Bài 1c:	**2đ**
$\lim\limits_{x\to +\infty}\left(\sqrt{4x^2+x}+\sqrt[3]{1-8x^3}\right)=\lim\limits_{x\to +\infty}\left(\sqrt{4x^2+x}-2x+2x-\sqrt[3]{8x^3-1}\right)$	0.5
$=\lim\limits_{x\to +\infty}\left(\dfrac{x}{\sqrt{4x^2+x}+2x}+\dfrac{1}{\left(\sqrt[3]{8x^3-1}\right)^2+2x\sqrt[3]{8x^3-1}+4x^2}\right)$	0.5 x 2
$=\lim\limits_{x\to +\infty}\left(\dfrac{1}{\sqrt{4+\dfrac{1}{x}}+2}+\dfrac{1}{x^2}.\dfrac{1}{\left(\sqrt[3]{8-\dfrac{1}{x^3}}\right)^2+2\sqrt[3]{8-\dfrac{1}{x^3}}+4}\right)=\dfrac{1}{4}$	0.25 x 2
Bài 2a:	**1.5đ**
$\begin{cases}BC\perp AB\\ BC\perp SA\end{cases}\Rightarrow BC\perp (SAB)$	0.5 x 3
Bài 2b:	**1.5đ**
• $\begin{cases}BD\perp AC\\ BD\perp SA\end{cases}\Rightarrow BD\perp (SAC)$	0.5 x 2
• $EF \parallel BD$. Suy ra $EF\perp (SAC)\Rightarrow EF\perp SC$	0.5
Bài 2c:	**1đ**
• H là trung điểm SB. Gọi K là trung điểm SD, suy ra $HK \parallel BD \parallel EF$ $\Rightarrow \left(\widehat{AH,EF}\right)=\left(\widehat{AH,HK}\right)$	0.25 0.25
• ΔSAB vuông cân: $AH=\dfrac{SB}{2}=\dfrac{a\sqrt{2}}{2}=AK$; $HK=\dfrac{BD}{2}=\dfrac{a\sqrt{2}}{2}$ Nên ΔAHK đều. Suy ra $\left(\widehat{AH,HK}\right)=\widehat{AHK}=60^0$	0.25 0.25
Bài 2d:	**1đ**
• Gọi $N=EF\cap AC$. Kẻ $AI\perp SN$. Suy ra $AI\perp (SEF)$. Gọi $M=EF\cap AB\Rightarrow MI$ là hình chiếu của AB lên (SEF)	0.25

hay $\left(\widehat{AB,(SEF)}\right)=\left(\widehat{AB,MI}\right)=\widehat{AMI}$	0.25
• $AN=\frac{3}{4}AC=\frac{3a\sqrt{2}}{4}\Rightarrow AI=\frac{3a}{\sqrt{17}}$ • $AM=\frac{3}{2}AB=\frac{3a}{2}\Rightarrow \sin\widehat{AMI}=\frac{AI}{AM}=\frac{2}{\sqrt{17}}\Rightarrow \widehat{AMI}=\arcsin\frac{2}{\sqrt{17}}$	0.25 0.25



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