



Name / Nom: _____

Class / Classe: _____

Date / Date: _____

Test in/Examen de: Mathematics

Time / La durée : _____

Correction standards

<p>Ex-1</p> <p>1) $A = \frac{3-8a+9b}{a-4b}$, for $a = \frac{1}{2}$ & $b = \frac{1}{3}$</p> $= \frac{3-8(\frac{1}{2})+9(\frac{1}{3})}{\frac{1}{2}-4(\frac{1}{3})}$ $= \frac{3-4+3}{\frac{1 \times 3}{2 \times 3} - \frac{4 \times 2}{3 \times 2}}$ $= \frac{2}{-\frac{5}{6}}$ <p>Thus, $A = -\frac{12 \times 2}{5 \times 2} = -2.4$ (c)</p> <p>2) Reciprocal of $\sqrt{2}$ is a root of $S(x)$ means $S(\frac{1}{\sqrt{2}}) = 0$ So, $S(\frac{1}{\sqrt{2}}) = (3(\frac{1}{\sqrt{2}}) - a)(2(\frac{1}{\sqrt{2}}) + a)$ So, $(\frac{3}{\sqrt{2}} - a)(\frac{2}{\sqrt{2}} + a) = 0$</p> <p>then, $\frac{3 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} - a = 0$ or $\frac{2 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} + a = 0$</p> <p>Thus, $a = \frac{3\sqrt{2}}{2}$ or $a = -\sqrt{2}$ (a)</p> <p>3) $M = \frac{4^{n+1} - 4^n}{2^{n+1} - 2^n}$ $= \frac{4^n(4-1)}{2^n(2-1)}$</p> <p>So, $M = \frac{4^n(3)}{2^n}$ hence, $M = 3 \times 2^n$</p>	<p>of 1st Trial.</p> $P = \left(\frac{14}{25} \times \frac{12}{21} + 5^{-1} \right) \times \left(\frac{3}{5} \right)^{-1}$ $= \left(\frac{2}{5} \times \frac{12^4}{3} + \frac{1}{5} \right) \times \frac{5}{3}$ $= \left(\frac{8}{5} + \frac{1}{5} \right) \times \frac{5}{3}$ $= \frac{9}{5} \times \frac{5}{3}$ <p>$P = 3$</p> <p>Thus, $M = P \times 2^n$ (a)</p> <p>4) $H = \sqrt{(2.1)^2 - \frac{37}{81}}$</p> $= \sqrt{\left(\frac{2 \times 9}{1 \times 9} \right)^2 - \frac{37}{81}}$ $= \sqrt{\left(\frac{19}{9} \right)^2 - \frac{37}{81}}$ $= \sqrt{\frac{361 - 37}{81}}$ $= \sqrt{\frac{324}{81}}$ $= \sqrt{\frac{18^2}{9^2}}$ <p>Thus, $H = 2$ (c)</p>
--	---