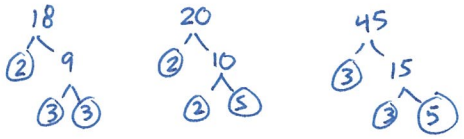
Math 20-2

KEY

L:06 – FQ – Dividing Radicals

Q1: Simplify each expression *(1 mark each)*

$\sqrt{18}+\sqrt{20}-\sqrt{2}+\sqrt{45}$



$\sqrt{2\cdot3^2}+\sqrt{2^2\cdot5}-\sqrt{2}+\sqrt{3^2\cdot5}$

$3\sqrt{2}+2\sqrt{5}-1\sqrt{2}+3\sqrt{5}$

$2\sqrt{2}+5\sqrt{5}$

$(5-3\sqrt{2})(\sqrt{2}+6)$

$5\sqrt{2}+30-3(2)-18\sqrt{2}$

$24-13\sqrt{2}$

Q2: Rationalize the Denominator *(1 mark each)*

$\frac{4}{3\sqrt{2}}\cdot\frac{\sqrt{2}}{\sqrt{2}}=\frac{4\sqrt{2}}{3(2)}=\frac{4\sqrt{2}}{6}$

$=\frac{2\sqrt{2}}{3}$

$\frac{2\sqrt{3}}{\sqrt{6}}\cdot\frac{\sqrt{6}}{\sqrt{6}}=\frac{2\sqrt{18}}{6}$

$=\frac{2\cdot3\sqrt{2}}{6}=\frac{6\sqrt{2}}{6}=\sqrt{2}$

$\frac{(2+\sqrt{3})}{(\sqrt{5})}\cdot\frac{\sqrt{5}}{\sqrt{5}}=\frac{2\sqrt{5}+\sqrt{15}}{5}$

MARKING:

Beginning	0.0 – 2.0
Progressing	2.5 – 3.0
Competent	3.5 – 4.5
Exemplary	5.0