CBSEASSISTANCE.COM

NUMBER SYSTEM

ASSIGNMENT 4

1. The value of $\frac{2^0+7^0}{5^0}$ is:

a. 2 b. 0 c. $\frac{9}{5}$ d. $\frac{1}{5}$

2. Simplify: $\left(\frac{15^{\frac{1}{4}}}{3^{\frac{1}{2}}}\right)^{-2}$
3. Simplify: $3\sqrt{45}-\sqrt{125}+\sqrt{200}-\sqrt{50}$
4. Simplify: $\frac{\sqrt{6}}{\sqrt{2}+\sqrt{3}}+\frac{3\sqrt{2}}{\sqrt{6}+\sqrt{3}}-\frac{4\sqrt{3}}{\sqrt{6}+\sqrt{2}}$
5. Simplify: $\frac{2}{\sqrt{5}+\sqrt{3}}+\frac{1}{\sqrt{3}+\sqrt{2}}-\frac{3}{\sqrt{5}+\sqrt{2}}$
6. Rationalise the denominator of $\frac{1}{\sqrt{7}+\sqrt{6}-\sqrt{13}}$
7. Express with rational denominator $\frac{1}{\sqrt{2}+\sqrt{3}+\sqrt{5}}$
8. If $a=\frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}}$ and $b=\frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}$, find the value of a^2+b^2-5ab.