|  |  |
| --- | --- |
| **Number Revision** | **5** |
| **(a)** | **(b)** | **(c)** | **(d)** |
| Evaluate:(a) $36^{^{3}/\_{2}}$(b) $64^{^{-2}/\_{3}}$(c) $32^{^{4}/\_{5}}$ | $$A=2^{3}×5^{4}×7^{2}×13$$$$B=2^{5}×5×7^{5}×11$$(a) Find the highest common factor (HCF) of $A$ and $B$(b) Find the lowest common factor of $2A$ and $5B$ | Calculate $$\frac{(5.2×10^{61})×(8.7×10^{75})}{2.6×10^{5}}$$giving your answer in standard form | Use an algebraic method to show that $0.6\dot{2}\dot{1}=\frac{41}{66}$ |
| **(e)** | **(f)** | **(g)** | **(h)** |
| Rationalise the denominator of $\frac{5+\sqrt{12}}{2-\sqrt{3}}$giving your answer in the form $a+b\sqrt{3}$ | $a=5$ correct to the nearest integer, $b=20 $correct to 1 significant figure and $c=7.5$ correct to 1 decimal place.Find the upper and lower bounds of $\frac{b-c}{a}$ | Write $$\frac{8^{3}×\sqrt{4^{10}}}{16^{^{3}/\_{2}}}$$as a single power of $2$ | Una invested $\$4000$ at a compound interest rate of $x\%$. After 7 years, her investment is worth $\$4787.31$. Find the value of $x$. |