EXPONENTS

Name

Class **Date**

ANSWERS

1a

1b

2a

2b

3a

3b

Evaluate the followings.

1 . a . $\left(\dfrac{a^{\frac{3}{2}}+b^{\frac{3}{2}}}{a^{\frac{1}{2}}+b^{\frac{1}{2}}}-a^{\frac{1}{2}}\times b^{\frac{1}{2}}\right)\div(a-b)+\dfrac{2b^{\frac{1}{2}}}{a^{\frac{1}{2}}+b^{\frac{1}{2}}}=?$

b . $\dfrac{\left(a^{\frac{1}{3}}-b\right)^{2}\times\left(\dfrac{b}{a^{\frac{1}{3}}}+\dfrac{a^{\frac{1}{3}}}{b}+1\right)}{\dfrac{b^{2}}{a^{\frac{2}{3}}}-\dfrac{b}{a^{\frac{1}{3}}}+\dfrac{a^{\frac{2}{3}}}{b^{2}}-\dfrac{a^{\frac{1}{3}}}{b}}=?$

2 . a . $\dfrac{\left(\dfrac{1}{9}\right)^{-4}\times 81^{3}\times\left(3^{-6}\right)^{2}+9^{5}\times\left(\dfrac{1}{3}\right)^{5}}{\left(-\dfrac{1}{81}\right)^{-1}\times(49)^{\frac{1}{2}}}$

b . $\dfrac{39\times\left(-\dfrac{1}{32}\right)^{-1}}{\left(-2^{3}\right)^{5}\times\left(\dfrac{1}{2}\right)^{-6}\times 64^{-2}+3\times 4\times(0.125)^{-1}}=?$

3. a . $\left(1\dfrac{61}{64}\right)^{\frac{2}{3}}+198^{0}-\left(9^{-0.4}\times 5^{\frac{1}{2}}\times 3^{\frac{4}{5}}\right)^{-2}+(0.0081)^{\frac{1}{4}}=?$

b . $\left(-3\dfrac{3}{8}\right)^{\frac{2}{3}}+27^{\frac{2}{3}}\times 9^{0.5}\times 3^{-2}+\left(\left(\dfrac{7}{9}\right)^{3}\right)^{0}-\left(-\dfrac{1}{2}\right)^{-2}=?$

C