

A2.A.19: Properties of Logarithms 5: Apply the properties of logarithms to rewrite logarithmic expressions in equivalent forms

1 If $\log a = 2$ and $\log b = 3$, what is the numerical value of $\log \frac{\sqrt{a}}{b^3}$?

1) 8

2) -8

3) 25

4) -25

2 Given: $\log_b 2 = 0.6931$ and $\log_b 3 = 1.0986$
Find $\log_b \sqrt{12}$

3 Given: $\log_a 5 = 2.32$ and $\log_a 9 = 3.17$
Find: $\log_a \frac{25}{9}$ and $\log_a \sqrt{45}$

4 Given: $\log_b R = 0.75$ and $\log_b S = 0.25$
Find: $\log_b R^2 S$ and $\log_b \frac{\sqrt[3]{R}}{RS}$

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1 ANS: 2 PTS: 2 REF: 060316b

2 ANS:
1.2424

PTS: 5 REF: 089342siii

3 ANS:
1.47, 2.745

PTS: 4 REF: 069441siii

4 ANS:
1.75, -0.75

PTS: 5 REF: 019840siii