



1. Solve $\log_5 25 = x$

(2)

2. Solve $\log_4 x = 1.5$

(2)

3. Solve $2\log_x 7 = 1$

(2)

4. Express $\log_q x^5$ in the form $p \log_q x$

(1)

5. Express $\frac{1}{2}\log_q x^{15}$ in the form $p \log_q x$

(1)

6. Express $\log_q \frac{1}{x}$ in the form $p \log_q x$

(2)

Solutions

1.

$5^x = 25$	M1
$x = 2$	M1

2.

$4^{1.5} = x$	M1
$x = 8$	M1

3.

$\log x \ 7 = \frac{1}{2}$	M1
$x^{0.5} = 7$ $x = 49$	M1

4.

$a = 5 \log_q x$	M1
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5.

$\frac{15}{2} \log_q x$	M1
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6.

$= \log_q x^{-1}$	M1
$= -\log_q x$	M1

