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$$M = 2^7 \times 3^3 \times 5^2$$

- (a) Write $14M$ as a product of its prime factors.
Give your answer in index form.

..... [2]

- (b) R is an integer.
 $\frac{M}{R}$ is a cube number.

Find the smallest possible value of R .

$R =$ [2]

14 Find the value of

(a) $3^2 \div 3^{-2}$

..... [2]

(b) $16^{-\frac{3}{2}}$.

..... [2]