| First Name | Surname |
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Assessment: Product of Prime Factors, LCM and HCF

1. Complete the following factor trees.
a.

(2)
b.

(1)
2. Express the following numbers as a product of their prime factors.
a. 188
(3)
b. 360
(3)
3. Find the $\operatorname{HCF}(85,510)$.
(4)
4. Find the $\operatorname{LCM}(12,20)$.
5. Two integers are given below.

$$
\begin{align*}
& A=2^{3} \times 3^{5} \times 7 \\
& B=2^{5} \times 3 \times 7^{2} \tag{2}
\end{align*}
$$

a. Calculate the value of the $\operatorname{HCF}(A, B)$.
b. Calculate the value of the $\operatorname{LCM}(A, B)$.
(3)
6. The prime factors of two integers, $X$ and $Y$ have been placed on the following Venn diagram.

a
What is the $\operatorname{HCF}(\mathrm{X}, \mathrm{Y})$ ?
(2)
b What is the LCM $(X, Y)$ ?
(2)

C
What is the product of $X$ and $Y$ ?
(2)
d What is the value of $\frac{X}{Y}$ ?

