1.6

Q15 Since $f(1) = \lim_{x \to 1} f(x)$

$$\therefore \quad \frac{A(1) - B}{(1) - 2} = 3(1)$$

$$\therefore \quad A - B = -3$$

$$A = B - 3$$

But $f(x)$ is discontinuous @ $x = 2$

So $f(2) \neq \lim_{x \to 2^-} f(x)$

$$\therefore \quad B(2)^2 - A \neq 3(2)$$

$$4B - A \neq 6$$

$$A \neq 4B - 6$$

So, if $A = B - 3$ and $A \neq 4B - 6$

then $B - 3 \neq 4B - 6$

$$3B \neq 3$$

$$B \neq 1$$

Thus, the function is continuous @ $x = 1$ and discontinuous @ $x = 2$ when $A = B - 3$, but $B \neq 1$.