5   It is given that $(a-b)^2 = 9$ and $2a^2 - 2b^2 = 42$ for $a > b$.
    Find the value of

(i)      $\dfrac{3}{(a-b)}$

*Answer*     *(i)* _____ [2]

(ii)   $(a+b)$

*Answer*     *(ii)* _____ [2]

(iii)     $4ab$

*Answer*     *(iii)* _____ [2]

5    It is given that $(a-b)^2 = 9$ and $2a^2 - 2b^2 = 42$ for $a > b$.

Find the value of

(i)    $\dfrac{3}{(a-b)}$

$(a-b)^2 = 9$

$a - b = 3$

$\dfrac{3}{a-b} = \dfrac{3}{3} = 1$ ☺

*Answer*    *(i)* _____ [2]

(ii)    $(a + b)$

$2a^2 - 2b^2 = 42$

$2(a^2 - b^2) = 42$

$a^2 - b^2 = 21$

$(a+b)(a-b) = 21$

From (i)    $a - b = 3$

$\therefore 3(a+b) = 21$

$a + b = 7$ ☺

*Answer*    *(ii)* _____ [2]

(iii)    $4ab$

From (i)    $a - b = 3$ — ①

From (ii)    $a + b = 7$ — ②

① + ②    $2a = 10$

$a = 5$

From ②    $5 + b = 7$

$b = 2$

$\therefore 4ab = (4)(5)(2)$

$= 40$ ☺

*Answer*    *(iii)* _____ [2]