22. [Algebra - Substitution]

Skill 22.1 Substituting into expressions involving + and −

Substituting into an expression means replacing the letters (pronumerals) with numbers and follow the order of operations.

Q. If $x = 3$, find the value of: $x + 4$	A. $x + 4$ $= 3 + 4$ $= 7$	Substitute x with 3. Add 3 and 4.

Q. If $m = 6$ and $n = 2$, find the value of: $m - n + m + 4$	A. $m - n + m + 4$ $= 6 - 2 + 6 + 4$ $= 4 + 6 + 4$ $= 14$	Substitute m with 6 and n with 2. Working from left to right, take 2 from 6. Add 4 and 6 and 4.

a) If $t = 7$,
find the value of:
$t + 5$

$= \underline{7 + 5}$

$= \underline{12}$

b) If $r = 8$,
find the value of:
$r + 3$

$=$ ....

$=$ ....

c) If $p = 5$,
find the value of:
$p + 4$

$=$ ....

$=$ ....

d) If $a = 6$,
find the value of:
$a + a + 4$

$=$ ....

$=$ ....

$=$ ....

e) If $h = 3$,
find the value of:
$h + h + h + 9$

$=$ ....

$=$ ....

f) If $k = 6$,
find the value of:
$k + k + 9 - k$

$= \underline{6 + 6 + 9 - 6}$

$= \underline{21 - 6}$

$=$ ....

g) If $f = 15$ and $g = 4$,
find the value of:
$f - g$

$=$ ....

$=$ ....

h) If $l = 8$ and $m = 5$,
find the value of:
$m + l$

$=$ ....

$=$ ....

i) If $q = 42$ and $r = 27$,
find the value of:
$q - r$

$=$ ....

$=$ ....

j) If $s = 9$ and $t = 2$,
find the value of:
$s - t + s + 4$

$=$ ....

$=$ ....

$=$ ....

k) If $y = 8$ and $z = 5$,
find the value of:
$12 - y + 7 - z$

$=$ ....

$=$ ....

$=$ ....

l) If $a = 6$ and $b = 3$,
find the value of:
$9 + a + a - b$

$=$ ....

$=$ ....

$=$ ....