

## FORMULAE

Name: \_\_\_\_\_

Assessment Criteria: Use formulae from mathematics and other subjects; substitute numbers into expressions and formulae; derive a formula and, in simple cases, change its subject

1. Using the values  $a = 2$ ,  $b = 3$ ,  $c = 1$  and  $d = 0$ , evaluate these expressions and match them up to their corresponding answers.

$b + c^2$
$a(b - a)$
$b^2 + d$
$a + b$

9
4
2
5

2. In each of the following formulae, find the value of the subject variable:

a)  $P = 2w + 4z$ : Find  $P$  when  $w = -3$  and  $z = 5$

$P = \underline{\hspace{2cm}}$

b)  $F = \frac{3(a + b)}{4}$ : Find  $F$  when  $a = 12$  and  $b = -16$

$F = \underline{\hspace{2cm}}$

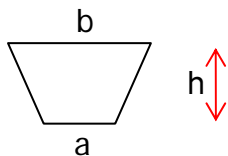
d)  $W = \frac{dt + rt^2}{2}$ : Find  $W$  when  $d = 0.4$ ,  $r = 1.3$ ,  $t = 0.8$

$W = \underline{\hspace{2cm}}$

c)  $M = T^2 + PQ$ : Find  $M$  when  $T = \frac{2}{5}$ ,  $P = \frac{7}{8}$ , and  $Q = \frac{3}{2}$

$M = \underline{\hspace{2cm}}$

3. Find a formula for the area of this isosceles trapezium. Explain clearly how you found the formula.



4. Make  $w$  the subject of the formula  $C = 2w + y$ .

$w =$  \_\_\_\_\_

Overall, I think my success level is:

Low	High
○ ○ ○ ○	○ ○ ○ ○

Q	FORMULAE	☺	☹
	I can substitute positive integers into expressions and formulae		
	I can substitute negative integers into expressions and formulae		
	I can substitute numbers including decimals into expressions and formulae		
	I can substitute numbers including fractions into expressions and formulae		
	I can derive a formula in simple cases		
	I can change the subject of a formula in simple cases		
	<i>I can justify generalisations, arguments or solutions</i>		

I need to practise ...