

Task A: Algebra Towers

Fill in the missing numbers and expressions in the towers below. To work out a missing square, you must add the two numbers or expressions below it.

1.

2.

3.

4.

Task B: Magic Squares

Each row, column and diagonal should add up to the same total.

1.

	$9X+3Y$	$4X+8Y$
		$3X+Y$
		$8X+6Y$
Total =		

2.

$-6Z$	$8Z$	
$4Z$		
Total = 0		

Task C: Substitution

1) By substituting the letters for numbers, work out the value of the expressions below.

A=1	B=2	C=3	D=5	E=7	F=10	G=24	H=100
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|----------------|-----------------|--------------------------|--------------------------|
| a) $A + B$ | e) $B \times D$ | i) $G \div B$ | m) $C \times D - E$ |
| b) $F - E$ | f) $F \times E$ | j) $H \div F$ | n) $H - G + E$ |
| c) $B + C + D$ | g) $G \times H$ | k) $B \times C \times D$ | o) $C \times F \div D$ |
| d) $H - G$ | h) $F \div B$ | l) $F \times G + H$ | p) $E \times C \times D$ |

Extension Question:

Use the values from the last task to work out the value of the expressions below.

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|----------|---------------|---------------|----------|
| a) D^2 | b) $D(B + C)$ | c) $E \div F$ | d) B^C |
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