**Construct Expressions, Formula and Equations**

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| Name : | Class : | Date : |

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| **1)** Write an algebraic expression for the sentence below (use the letter ***n*** to represent the missing number):         *Double a number* | [1] |
| **2)** I start a game with   marbles and lose   marbles. Write down a formula for the number,  , of marbles that I finish with. | [1] |
| **3)** Using the letter ***n***, write an equation to represent the following:         *I'm thinking of a number. I double it then add 4 and get an answer of 16.* | [1] |
| **4)** a) Using the letter ***n*** to represent the missing number, write an equation for the following:        *I'm thinking of a number. I double it then add 5 and get an answer of 17.*    b) Solve your equation to find the missing number | [1] |
| **5)** Find, in its simplest form, the **perimeter** of the shape given below in terms of  .        http://www.mathster.com/course/simgs/16147733899_1.png | [1] |
| **6)** Write down a fully simplified formula for the perimeter,  , of the isosceles triangle given below          http://www.mathster.com/course/simgs/16147733899_2.png | [1] |
| **7)** Write down a fully simplified formula for the perimeter,  , of the isosceles triangle given below          http://www.mathster.com/course/simgs/16147733899_3.png | [1] |
| **8)** Write a formula using the letters and numbers given below       a)  Triple a number   and add 8       b)  A number   is equal to the sum of a number   and the square of  . | [2] |
| **9)** I buy   kg of oranges and   kg of pineapples. Write down a formula for   if   kg is the weight of the fruit that I bought | [1] |
| **10)** Jon has two trees in his garden. One is 4 metres taller than the other. If we let   be the height of the shorter tree, write an algebraic expression for the sum of the two trees' heights. | [1] |
| **11)** Write down a formula for the perimeter,  , of the rectangle given below          http://www.mathster.com/course/simgs/16147733899_4.png | [1] |

**Solutions for the assessment Construct Expressions, Formula and Equations**

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| **1)** 2 | **2)** |
| **3)** | **4)** a)  , b)  =6 |
| **5)**   = (42z + 34) | **6)**   = (14s + 5t)  mm |
| **7)**   = (7x + 17) |  |
| **8)**  a) | b)   = |
| **9)** | **10)** |
| **11)**   = (2s + 2t)  cm |  |