

Name: ..... Class: .....

Write variable expressions: two operations

Write an expression for the sequence of the following operations described below  
(do not simplify your answer).

1.  $w$  times 11, then add  $x$  to the result.
2. Double  $t$ , then add 52 to the results
3. Half 10 then divide  $t$  by the result.
4. Subtract 0 from  $p$ , then add  $q$  to the result
5. Multiply 10 by  $a$ , then raise the result to the 5<sup>th</sup> power
6. Raise  $s$  to the 15<sup>th</sup> power, then triple the results
7. Divide 20 by 27, then subtract  $b$  from the results



Write variable expressions word problems

1. Mary has 30 candies. she gives away  $t$  candies. Write an expression for the number of candies Mary has left.
2. Rita's new phone has  $x$  hours of battery life. Her old Phone has 3 hours battery life less than that of the new phone. Choose the expression that shows the battery life of Rita's old phone.  
☐  $3 - x$     ☐  $3 + x$     ☐  $x + 3$     ☐  $x - 3$
3. Yesterday, Tracy bought 16 cupcakes. She divided it equally amongst her  $x$  girlfriends. Write an expression for the number of cakes each girlfriend got.
4. In Olivia's marble collection, there are  $w$  jars of marbles. Each jar has 51 red marbles. Write an expression for the total number of red marbles in  $w$  jars of marbles.

## Identify equivalent expressions II

1. Tick all the expressions that are equivalent to  $10(2x)$   
☐  $20x$       ☐  $12x$       ☐  $2(10x)$       ☐  $10(x + x)$
2. Tick all the expressions that are equivalent to  $15t - 6t$   
☐  $21t^2$       ☐  $9t$       ☐  $15t$       ☐  $9.t$
3. Tick all the expressions that are equivalent to  $3u + 6u$   
☐  $u + 9$       ☐  $9$       ☐  $7u + (3u) + 5u$       ☐  $2u$
4. Tick all the expressions that are equivalent to  $21a / 7$   
☐  $3a$       ☐  $3 . a$       ☐  $3^a$       ☐  $a^3$
5. Tick all the expressions that are equivalent to  $3(4v)$   
☐  $12v$       ☐  $2.6v$       ☐  $v(3.4)$       ☐  $3(2v + 2v)$
6. Tick all the expressions that are equivalent to  $11s - 7s$   
☐  $18s$       ☐  $10s - 6s$       ☐  $4s$       ☐  $11s + (-5s) - 2s$
7. Tick all the expressions that are equivalent to  $7a + 3a$   
☐  $7a + (-3a) + 6a$       ☐  $10 + a$       ☐  $10a$       ☐  $10 . a$
8. Tick all the expressions that are equivalent to  $8u / 4$   
☐  $2u$       ☐  $2$       ☐  $2.2u$       ☐  $2.u$

