

Define your variables. Write the algebraic expression.

- Paul, Jack, and Molly went to McDonalds. When the bill arrived, they split the bill but Jack paid five more dollars than Paul and Molly. Write an expression for how much Jack paid.
- Samantha bought a dress for work. She also bought a pair of shoes, which cost five dollars more than the dress, and a scarf that was two dollars less than the dress. Write an algebraic expression for how much she paid in total.
- Nick is three years older than Joey and Bryan is twice as old as Joey. Write an algebraic expression for the sum of their ages.
- The sum of twice the quantity of five less than a number and ten is half the quotient of that number and six
- Diego ran a race last weekend. Dana ran four more miles than Diego. Write an expression that shows the difference in the distances they ran.
- The sum of the product of a number and seven and twice the same number squared

Write the following expressions using ONLY words. CANNOT use the words added, plus, minus, subtracted, divided by multiplied or times.

- $4(n - 1) + 3n$
- $-6 + (n^2 - 4n)$
- $5 + (3n - 2)^2$

① let m = McDonalds bill
Jack paid $\frac{m-5}{3} + 5$

③ let j = Joey's age
let $j+3$ = Nick's age
let $2j$ = Bryan's age
 $T = j + (j+3) + 2j$
 $T = 4j + 3$

④ let n = a number
 $2(n-5) + 10 = \frac{1}{2}\left(\frac{n}{6}\right)$

⑥ let n = the number
 $7n + (2n)^2$

② let d = cost of dress
let $d+5$ = cost of shoes
let $d-2$ = cost of scarf
 $T = d + (d+5) + (d-2)$

$T = 3d + 3$

⑤ miles that Diego ran last weekend = d
 $d+4$ = Dana's miles ran
Difference = $(d+4) - d$