

Complete as many of the following problems as you can. You do not have to go in order. You can use a calculator to check your work but not to solve the problems.

If **your entire table** finishes early, you may leave early.

(1) Simplify the following expressions:

(a)  $-5y + 3 - 5 + 5 + y - 3$

(b)  $7(t + 8) - 4$

(c)  $2[-7x - 3(3 - x)]$

(d)  $-[-5x - (3x + 5)] - [ -(-10x - (3 - 2x)) + 2x ]$

(2) Solve and check following linear equations.

(a)  $6x - 15 = 15$

(b)  $\frac{11x}{12} = \frac{x}{2} + 5$

(c)  $3(x - 2) + 8 = 2(x + 5)$

(d)  $\frac{x + 4}{2} - 2 = \frac{2x - 1}{3}$

(3) Solve for the specified variable:

(a)  $y = 7x + 13$  for  $x$

(b)  $B = \frac{1}{4}(q + z)$  for  $q$

(c)  $A = \frac{2x + y + 3z}{5}$  for  $z$

(d)  $F = \frac{9}{5}C + 32$  for  $C$

Key:

(1) (a)  $-4y$

(b)  $7t + 52$

(c)  $-8x - 18$

(d)  $2 - 2x$

(2) (a) 5

(b) 12

(c) 8

(d) 2

(3) (a)  $x = \frac{y-13}{7}$

(b)  $q = 4B - z$

(c)  $z = \frac{5A-2x-y}{3}$

(d)  $C = \frac{5}{9}(F - 32)$  or  $C = \frac{5F}{9} - \frac{160}{9}$