**TYPE 1: SLOPE & POINT**

1) Determine the equation of a line in y = mx + b form that has a slope of -1/3 and goes through the point (-2, 6).

2) Determine the equation of a line in y = mx + b form that has a slope -2 and goes through the point (-3, 4).

3) Determine the equation of a line in y = mx + b form that is perpendicular to the line $y=-2x+3$ and goes through the point (-4, 3).

4) Determine the equation of a line (A) in y = mx +b form that is parallel to the line (B) y = -2x + 1 and has the same
y-intercept as line (C) 2x + 3y – 15 = 0.

**TYPE 2: POINT & POINT**

5) Determine the equation of a line in y = mx + b form that goes through the points (-4, 2) and (5, 29).

6) Determine the equation of a line in y = mx + b form with an *x*-intercept of –4 and passing through (3, -7)

7) Determine the equation of a line in y = mx + b form with an *x*-intercept of 3 and a *y*-intercept of 5.

8) Determine the equation of a line (A) in y = mx + b form with the same *y*-intercept as line (B) and goes through the same point when x is -12 on line (C) –x + 3y – 12 = 0.

**TYPE 3: EQUATIONS THAT DO NOT NEED CALCULATIONS**

These types of equation are rather easy to work with. Just sketch the situation.

9) Determine the equation of **horizontal** a line in y = mx + b form that goes through (-5, 7).

10) Determine the equation of a line in y = mx + b form that goes through the points (–3, –1) and (–3,–5).

11) Determine the equation of a line in y = mx + b form that is perpendicular to x = 0 line and goes through origin.

12) Determine the equation of a line in y = mx + b form that is parallel to the *x*‑axis and through (–5, 4).

**TYPE 4: LOOKS CHALLENGING BUT PIECE OF CAKE**

13) Determine the equation of a line (A) in y = mx + b form that is perpendicular to line (B) 3x – 2y – 12 = 0 and has the same x-intercept as line (C) -3x + 4y -15 = 0.

14) Determine the equation of a line (A) in y = mx + b form with *x*-intercept –4 and intersecting the line (B) when.

15) Determine the equation of a line (A) in y = mx + b form that is parallel to line (B) 4x + 2y – 15 = 0 has the same
y-intercept as line (C) x – 3y + 15 = 0.

16) Determine the equation of a line (A) in y = mx + b form that intersects with line (B) y = 2x + 3 when x is -4 and intersects with line (C) y = -3x + 1 when y is -8.