**Inquiry Questions – Extra Practice**

Find the equation of the line that is:

1. Parallel to $y=\frac{2}{3}x+5$, and passes through (4, –5)
2. Perpendicular to $y=-\frac{2}{5}x+4$, passes through the origin
3. Perpendicular to y = 4x – 3, passes through the point (–2, 7)
4. Perpendicular to 2x – 3y + 6 = 0 and has the same x-intercept as 3x + 7y + 9 = 0
5. Parallel to 4x – 2y + 32 = 0 and has the same y-intercept as 8x – 2y + 12 = 0
6. Perpendicular to 12x + 3y + 48 = 0 and passes through (–4, –8)
7. Parallel to the x-axis, passes through (3, –6)
8. Perpendicular to x = –2, passes through the point (1, –3)

***Solutions:***

a) $y=\frac{2}{3}x-\frac{23}{3}$ b) $y=\frac{5}{2}x$ c) $y=\frac{-1}{4}x+\frac{13}{2}$ d) $y=\frac{-3}{2}x-\frac{9}{2}$

e) $y=2x+6$ f) $y=\frac{1}{4}x-7$ g) $y=-6$ h) $y=-3$