Worksheet: Algebra

1) The letters **X, Y, Z** are letters which represent the following numbers,

X = 3 **Y = 5** **Z = 7**

Using this information, solve the following equations,

a) X + Y b) Y + Z c) X + Z d) X + Y + Z

e) Y – X f) Z – Y g) Z – X h) Z – Y + X

2) Solve each of the equations below to find what number **X** must represent,

a) 3 + X = 8 b) 7 + X = 13 c) 15 + X = 43 d) 91 + X = 100

e) X – 10 = 20 f) 17 – X = 2 g) X – 19 = 41 h) 230 – X = 21

Now try these,

f) 4X = 40 f) 6X = 18 g) 2X = 120 h) 5X = 35

i) X ÷ 2 = 10 j) X ÷ 4 = 16 k) X ÷ 8 = 64 l) X ÷ 9 = 180

3) The questions below use a **mixture** of the above problems!

a) 2X + 4 = 16 b) 3X – 4 = 8 c) 5X + 7 = 22 d) 4X – 6 = 18

4) The letters **P, Q, R** are letters which represent the following numbers,

P = 4 **Q = 12** **R = 6**

Use this to solve,

a) 2P + Q b) $R^2 – 2Q$ c) $4P + Q^2 – R$ d) PR – Q

e) $P^2 – 2QR$ f) $P^2 + Q^2$ g) PQR h) PQ ÷ R