SRD Work – Year 8

1. Finding gradient and intercept

For each equation, write down the gradient and the intercept

a) $y = 2x + 7$ b) $y = -5x - 2$ c) $y = 8x - 4$

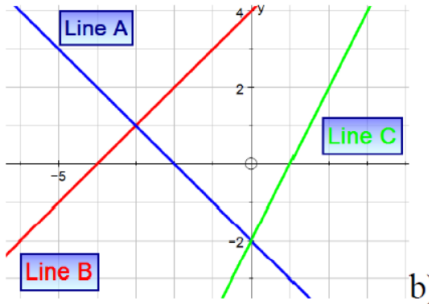
d) $y = -3x + 6$ e) $2y = 18x + 4$ f) $6y = -9x + 48$

g) $5y - 3x = 20$ h) $\frac{1}{2}y + \frac{1}{3}x = -15$ i) $4y - 64x + 22 = 0$

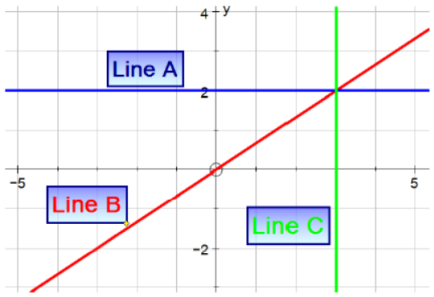
2. Equations of a straight line

For each question, find the equation of the three lines

a)



b)



3. Adding and Subtracting Fractions

Calculate:

a) $\frac{1}{4} + \frac{2}{4}$ b) $\frac{1}{3} + \frac{1}{6}$ c) $\frac{2}{7} + \frac{5}{14}$ d) $\frac{2}{9} - \frac{4}{36}$ e) $\frac{1}{10} + \frac{1}{20} + \frac{1}{30}$

f) $\frac{1}{8} - \frac{1}{16} + \frac{1}{32}$ g) $\frac{2}{5} - \frac{3}{7}$ h) $\frac{8}{5} - \frac{5}{8}$ i) $1\frac{5}{6} + \frac{7}{9}$ j) $2\frac{2}{13} - \frac{7}{11}$

k) $\frac{1}{2} + 2\frac{1}{3} + 3\frac{1}{4}$ l) $\frac{1}{2} - 2\frac{1}{3} + 3\frac{1}{5}$

4. Solving Equations

Solve these equations

j) $3x - 2 = 13$ k) $10 = 12 + 4x$ l) $7 + \frac{x}{2} = 4$

m) $7x - 5 = 2x + 8$ n) $4 - 5x = 16 + 7x$ o) $3x - 9 = 4x + 4$

p) $6 - 3(x + 1) = 7$ q) $2(x + 3) = 3(x + 2)$ r) $5(-1 - x) = 4(10 + x)$

5 Multiplying and Dividing Fractions

Calculate:

a) $\frac{1}{4} \div \frac{2}{4}$ b) $\frac{1}{3} \times \frac{1}{6}$ c) $\frac{2}{7} \div \frac{5}{14}$ d) $\frac{2}{9} \times \frac{6}{8}$ e) $\frac{9}{10} \times \frac{3}{7}$

f) $\frac{10}{11} \div \frac{11}{5}$ g) $5\frac{1}{3} \div \frac{7}{3}$ h) $\frac{8}{5} \times \frac{5}{8}$ i) $2\frac{5}{6} \div \frac{7}{9}$ j) $2\frac{2}{13} \times \frac{7}{11}$