

Collecting like terms

1) Simplify the expression

a) $c + c$

b) $10c - 2c$

c) $y + 4c$

d) $c + c + c + b + b$

e) $6g - 6g$

f) $3f + f$

g) $3d - 2d$

h) $29g + 18g$

i) $45a - 26a$

j) $2x + g + 4g + 2x$

k) $6x - 4x + 2x$

l) $6c + 7x - 2x - 4c$

Solutions for the assessment Collecting like terms - basics

1) a) $2c$

b) $8c$

c) $y + 4c$

d) $3c + 2b$

e) 0

f) $4f$

g) d

h) $47g$

i) $19a$

j) $4x + 5g$

k) $4x$

l) $2c + 5x$

Fraction of a quantity

1) Work out the following

a) $\frac{1}{6}$ of 42

b) $\frac{1}{7}$ of 49

c) $\frac{2}{3}$ of 21

d) $\frac{2}{3}$ of 9

e) $\frac{4}{9}$ of 16

f) $\frac{4}{9}$ of 21

g) $\frac{9}{5}$ of 11

h) $\frac{1}{5}$ of 30 tonnes tonnes

i) $\frac{2}{3}$ of 24 kg kg

2) Work out the following, giving your answer as a decimal, rounded to 2 d.p where necessary

[1]

$\frac{5}{8}$ of 28 s s

Solutions for the assessment Fraction of a quantity

1) a) 7

b) 7

c) 14

d) 6

e) $7\frac{1}{9}$

f) $9\frac{1}{3}$

g) $19\frac{4}{5}$

h) 6 tonnes

i) 16 kg

2) 17.5 s

Order of Operations

1) Work out

a) $6 \times 6 \div 2$

b) $2 \times 18 \div 3$

c) $4 + 8 \times 1$

d) $9 \times 7 - 1 \times 6$

e) $30 \div 5 - 32 \div 8$

f) $9 + 5 \times 2 - 1$

g) $2 + 3 \div 3 - 6$

h) $(9 - 3) \times (1 - 7)$

i) $4 - (6 - 9)$

j) $5 - 2(1 - 2)$

Solutions for the assessment Order of Operations

1) a) 18

b) 12

c) 12

d) 57

e) 2

f) 18

g) -3

h) -36

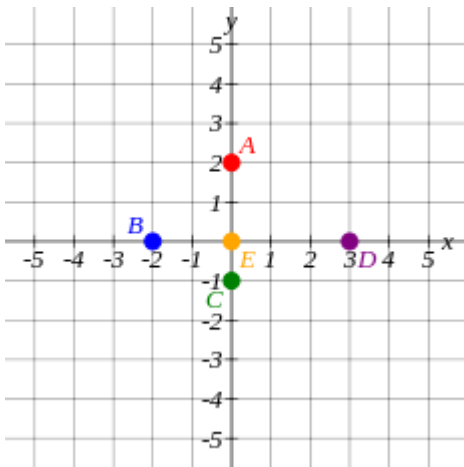
i) 7

j) 7

Reading and Plotting Coordinates - Advanced

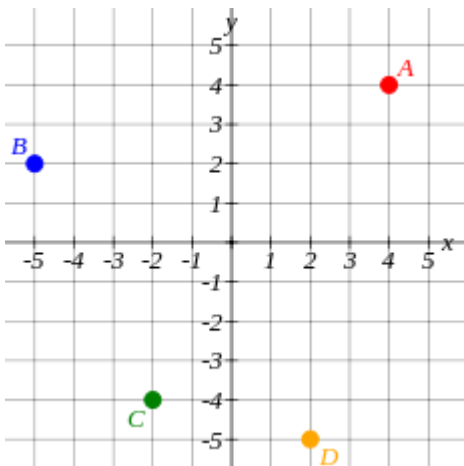
1) Find the coordinates of the following points.

[1]



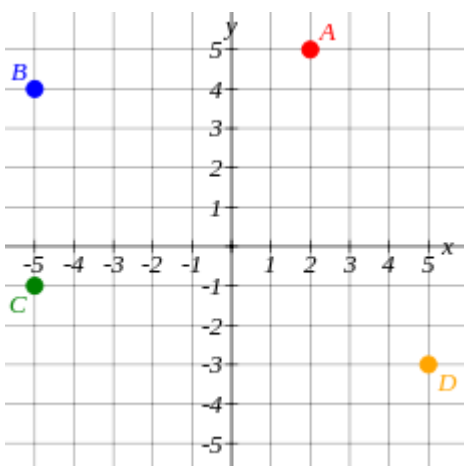
2) Find the coordinates of the following points.

[1]



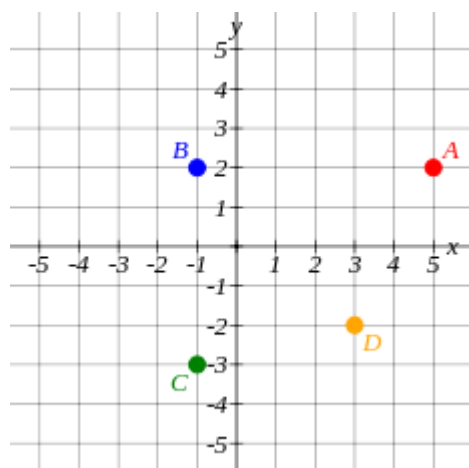
3) Find the coordinates of the following points.

[1]



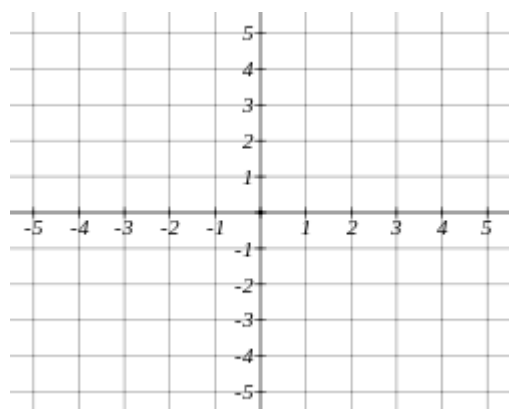
4) Find the coordinates of the following points.

[1]



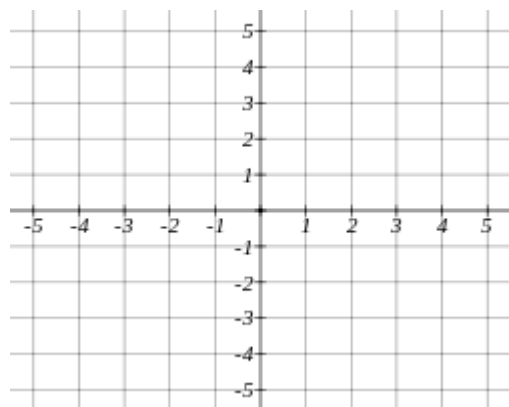
5) Plot the points (0,2), (-1,0), (0,-3), (3,0) and (0,0) on the grid below.

[1]



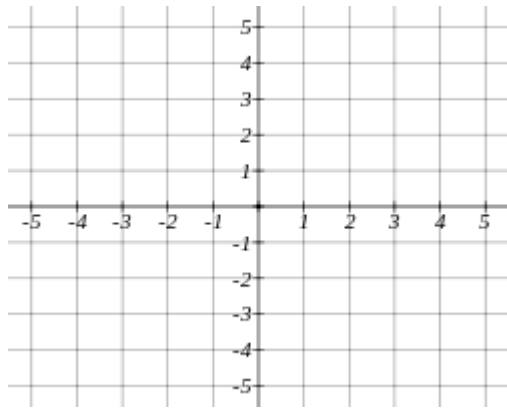
6) Plot the points (5,1), (-3,2), (-3,-2) and (5,-5) on the grid below.

[1]



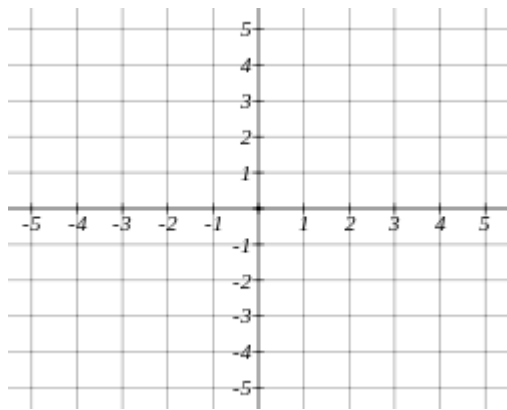
7) Plot the points $(5,2)$, $(-2,2)$, $(-2,-4)$ and $(2,-4)$ on the grid below.

[1]



8) Plot the points $(5,1)$, $(-5,5)$, $(-2,-3)$ and $(2,-3)$ on the grid below.

[1]



Solutions for the assessment Reading and Plotting Coordinates - Advanced

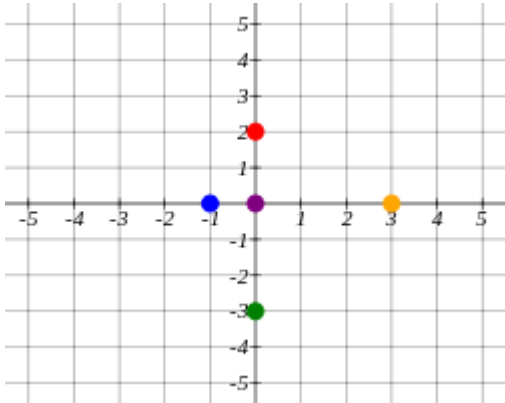
1) A(0,2), B(-2,0), C(0,-1), D(3,0), E(0,0)

2) A(4,4), B(-5,2), C(-2,-4), D(2,-5)

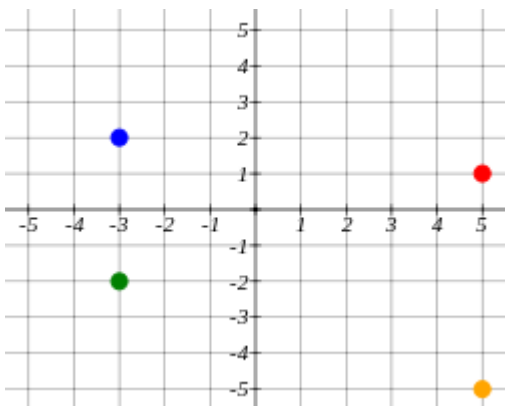
3) A(2,5), B(-5,4), C(-5,-1), D(5,-3)

4) A(5,2), B(-1,2), C(-1,-3), D(3,-2)

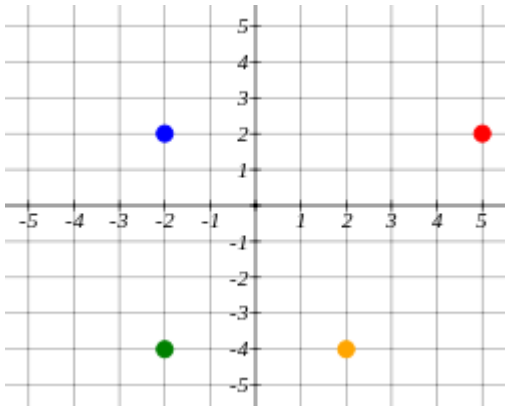
5) (0,2), (-1,0), (0,-3), (3,0) and (0,0)



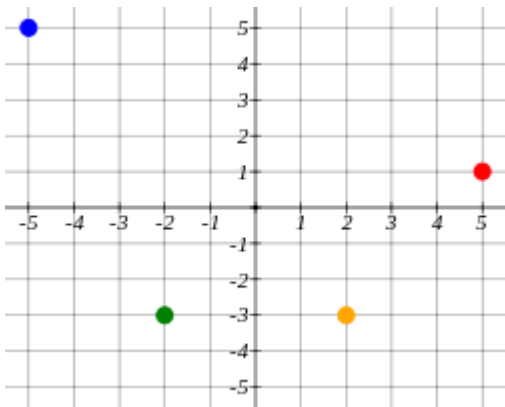
6) (5,1), (-3,2), (-3,-2) and (5,-5)



7) $(5,2)$, $(-2,2)$, $(-2,-4)$ and $(2,-4)$



8) $(5,1)$, $(-5,5)$, $(-2,-3)$ and $(2,-3)$



Sharing using ratios

1) Share 32 beads between Joshua and Kitty in the ratio 6 : 10 [1]

Joshua gets beads and Kitty gets beads

2) Share 24 cards between Lacey and Martha in the ratio 2 : 6 [1]

Lacey gets cards and Martha gets cards

3) Share 56 beads between Finn and Grace in the ratio 10 : 4 [1]

Finn gets beads and Grace gets beads

4) Share 40 buttons between Freya and Sophie in the ratio 6 : 2 [1]

Freya gets buttons and Sophie gets buttons

5) Divide 58 yards in the ratio 1 : 13 : 15 [1]

yards : yards : yards

6) Divide 160 km in the ratio 10 : 9 : 13 [1]

km : km : km

7) Divide 66 cm in the ratio 6 : 15 : 1 [1]

cm : cm : cm

8) Divide 105 cm in the ratio 14 : 10 : 11 [1]

cm : cm : cm

9) Divide £9.95 between Kayden and Sam in the ratio 7 : 5.
Give your answer to the nearest penny.

[1]

Kayden gets £ and Sam gets £

10) Divide £2.28 between Eve and Amelie in the ratio 9 : 5.
Give your answer to the nearest penny.

[1]

Eve gets £ and Amelie gets £

Solutions for the assessment Sharing using ratios

1) Joshua gets 12 beads and Kitty gets 20 beads

2) Lacey gets 6 cards and Martha gets 18 cards

3) Finn gets 40 beads and Grace gets 16 beads

4) Freya gets 30 buttons and Sophie gets 10 buttons

5) 2 yards : 26 yards : 30 yards

6) 50 km : 45 km : 65 km

7) 18 cm : 45 cm : 3 cm

8) 42 cm : 30 cm : 33 cm

9) Kayden gets £5.80 and Sam gets £4.15

10) Eve gets £1.47 and Amelie gets £0.81

Solve - 1 Step Equations

1) Solve the equation

a) $c + 8 = 9$

b) $x - 4 = 6$

c) $y + 1 = -1$

d) $c - 5 = -4$

e) $2 + x = 2$

f) $-8 = b + 1$

g) $5b = 15$

h) $11c = -121$

i) $48 = 4c$

j) $\frac{z}{8} = 8$

k) $\frac{c}{5} = -5$

l) $4 = \frac{b}{6}$

2) Solve the following equation, leaving your answer as a fraction

[1]

$$6b = 7$$

Solutions for the assessment Solve - 1 Step Equations

1) a) 1

b) 10

c) -2

d) 1

e) 0

f) -9

g) 3

h) -11

i) 12

j) 64

k) -25

l) 24

2) $1\frac{1}{6}$