Translations

Task 1 – Describe the translations between the following shapes. The first one has been done for you.

a) ◆ to ▼ = 2 right, 3 down

b) ■ to ✚ =

c) ● to ⬡ =

d) ♥ to ☾ =

e) ☾ to ◆ =

f) ▼ to ■ =

g) ● to ♥ =

h) ✚ to ▲ =

Translations

Task 2 – **Describe these shape translations** from A to B:

Translation =

....

Translation =

....
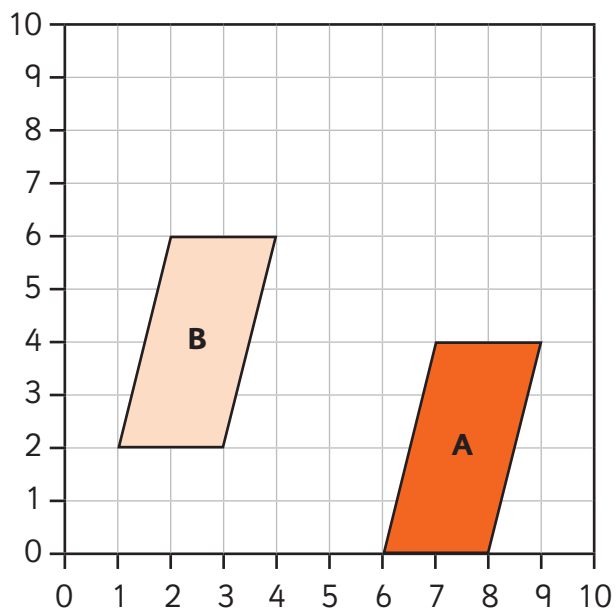
Translation =

....

Translations

Task 3 – Follow the instructions to translate these shapes. Draw the new shapes on the grid and write the **new coordinates** of the vertices.
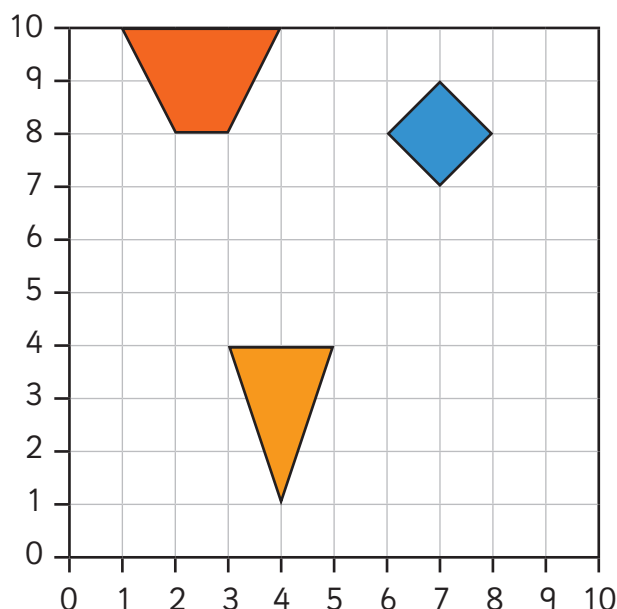
a) Translate the **blue** square **3 left, 2 down**.

   New coordinates: ....

b) Translate the **yellow** triangle **4 right**.

   New coordinates: ....

c) Translate the **orange** trapezium **5 right, 4 down**.

   New coordinates: ....

Extension:
Can you work out the **new coordinates** of these shapes after translation **without** using a coordinate grid?
a) A **rectangle** with coordinates (2,1), (4,1), (2,4), (4,4) is translated **2 right** and **3 up**.

   New coordinates = ...

b) A **triangle** with coordinates (6,4), (10,4), (8,8) is translated **3 left** and **2 down**.

   New coordinates = ...

c) A **rhombus** with coordinates (0,3), (3,3), (4,5), (1,5) is translated **5 right** and **5 up**.

   New coordinates = ...
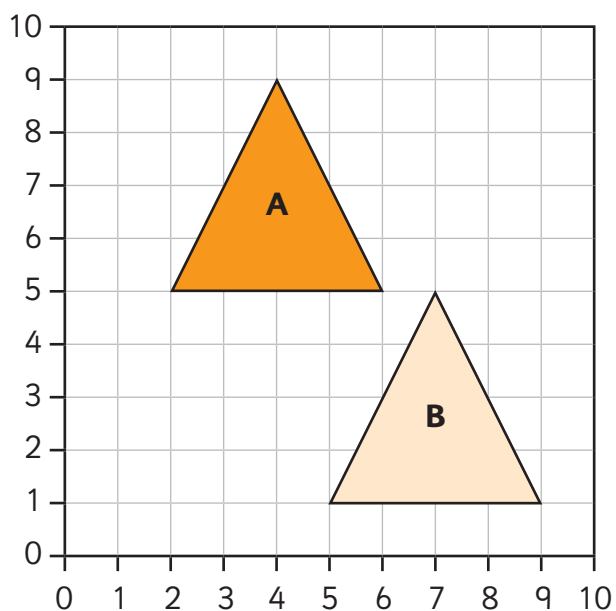
Translations

Task 1 – Describe the translations between the following shapes.
The first one has been done for you.

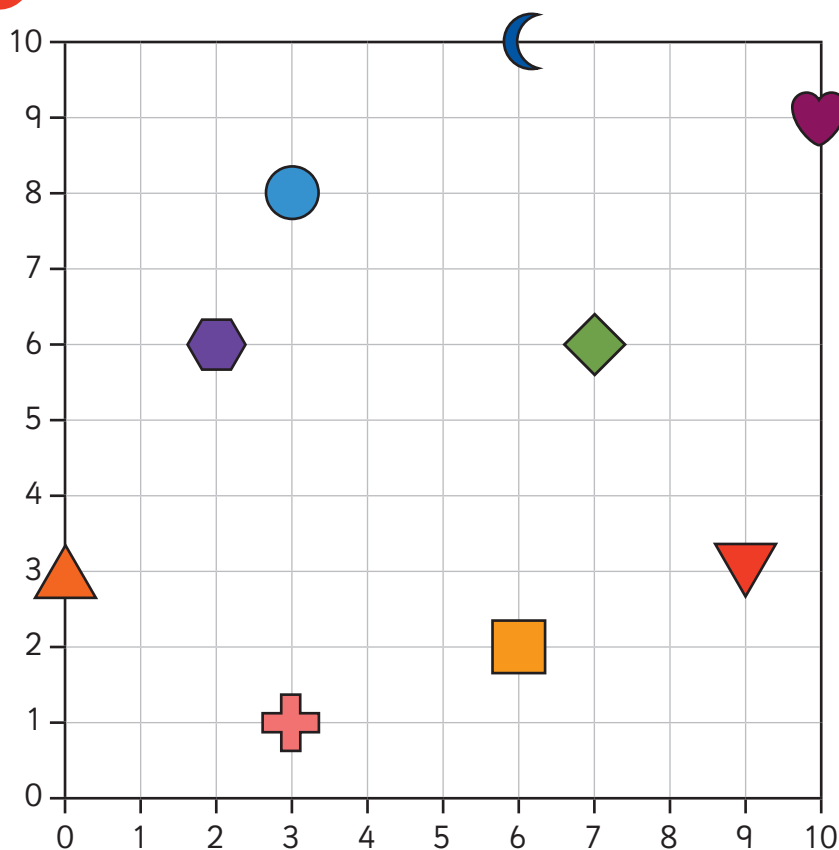a) ◆ to ▼ = **2 right, 3 down**

b) ■ to ✚ = **3 left, 1 down**

c) ● to ⬡ = **1 left, 2 down**

d) ♥ to ☾ = **4 left, 1 up**

e) ☾ to ◆ = **1 right, 4 down**

f) ▼ to ■ = **3 left, 1 down**

g) ● to ♥ = **7 right, 1 up**

h) ✚ to ▲ = **3 left, 2 up**

Translations

Task 2 – **Describe these shape translations** from A to B:
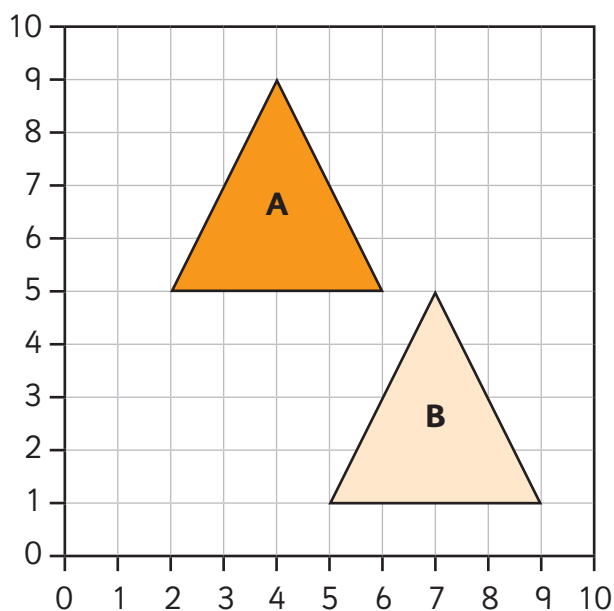
Translation =

.... 3 right, 4 down ....
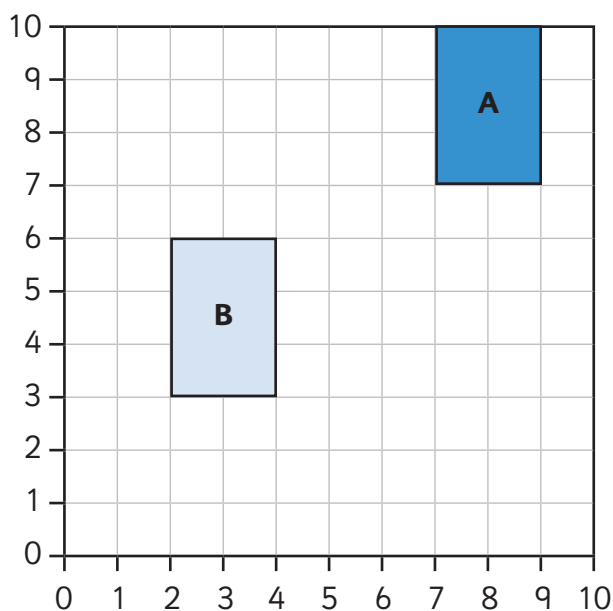
Translation =

.... 5 left, 4 down ....
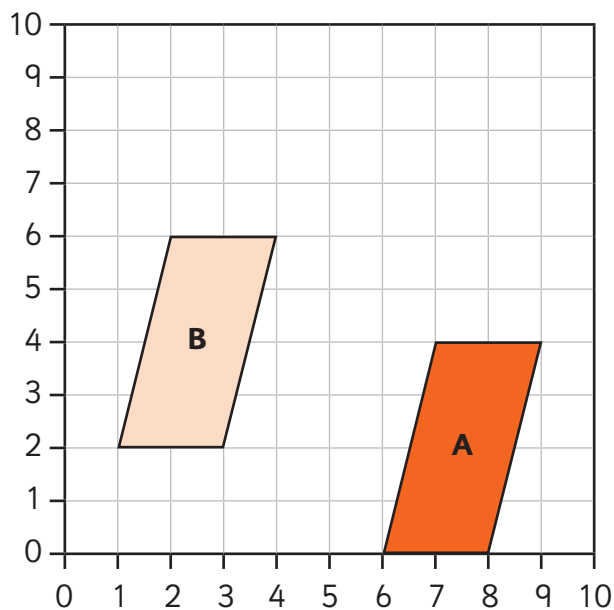
Translation =

.... 5 left, 2 up ....

Translations

Task 3 – Follow the instructions to translate these shapes. Draw the new shapes on the grid and write the **new coordinates** of the vertices.

a) Translate the **blue** square **3 left, 2 down**.

New coordinates: ....(3,6), (4,5), (5,6), (4,7).............................

b) Translate the **yellow** triangle **4 right**.

New coordinates: ....(8,1), (9,4), (7,4).............................

c) Translate the **orange** trapezium **5 right, 4 down**.

New coordinates: ....(6,6), (7,4), (8,4), (9,6).............................
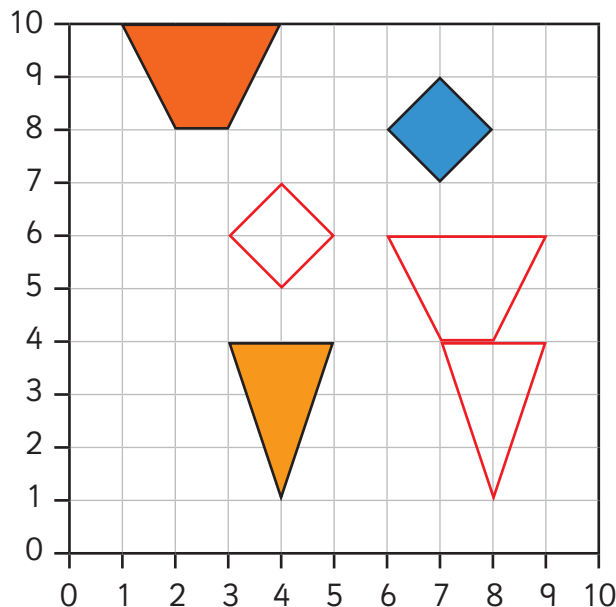
Extension:
Can you work out the **new coordinates** of these shapes after translation **without** using a coordinate grid?
a) A **rectangle** with coordinates (2,1), (4,1), (2,4), (4,4) is translated **2 right** and **3 up**.

New coordinates = ...(4,4), (6,4), (4,7), (6,7).............................

b) A **triangle** with coordinates (6,4), (10,4), (8,8) is translated **3 left** and **2 down**.

New coordinates = ...(3,2), (7,2), (5,6).............................

c) A **rhombus** with coordinates (0,3), (3,3), (4,5), (1,5) is translated **5 right** and **5 up**.

New coordinates = ...(5,8), (8,8), (9,10), (6,10).............................

CGP+