International day of Yoga (21 June)
Yoga is an ancient practice that started in India. The word 'yoga' means to join or unite (like the body and mind unite during yoga) in Sanskrit. Yoga uses a range of breathing techniques, exercises and meditation. When completed properly, it is believed that yoga can reduce stress or tension in the body, improve physical health, focus and self-confidence.

## Use the graphs to answer the questions on the following page.



The dotted line is a mirror line.


## Maths Code Crackers | Year 5 | Position and Direction | Questions

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Yoga is an ancient practice that started in India. The word 'yoga' means to join or unite (like the body and mind unite during yoga) in Sanskrit. Yoga uses a range of breathing techniques, exercises and meditation. When completed properly, it is believed that yoga can reduce stress or tension in the body, improve physical health, focus and self-confidence.

## Solve each question below. Then use the key to find the answer to the joke. Letters can be used more than once.

1. What are the coordinates of point A?
2. What are the coordinates of point D?
3. The triangle is translated right 2 units. What are the new coordinates of vertex A?
4. The triangle is translated down 1 unit. What are the new coordinates of vertex $B$ ?
5. The triangle is translated left 1 unit and down 3 units. What are the new coordinates of vertex B ?
6. Point $B$ is translated 3 units left and then reflected in the mirror line. What are the new coordinates?
7. What are the coordinates of point B?
8. Point $B$ is reflected in the mirror line. What are the new coordinates?
9. Point $A$ is reflected in the mirror line and then translated down 2 units. What are the new coordinates?
10. Point $D$ is translated 3 units up and 1 unit left. What are the new coordinates?
11. Point C is reflected in the mirror line. What are the new coordinates?
12. The triangle is translated down 4 units and left 1 unit. What are the new coordinates of vertex C?
13. What are the coordinates of point C?

## Did you know?

A 'posture' or body position in yoga is called an 'asana'. It means the way they sit and balance their mind and body.
10. Point $A$ is translated 1 unit right and 3 units down. What are the new coordinates?
13. A point is plotted at $(1,7)$ and then reflected in the mirror line. What are the new coordinates?
16. Point $D$ is translated down 1 unit. What are the new coordinates?

| $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{D}$ | $\mathbf{E}$ | $\mathbf{F}$ | $\mathbf{G}$ | $\mathbf{H}$ | $\mathbf{I}$ | $\mathbf{J}$ | $\mathbf{K}$ | $\mathbf{L}$ | $\mathbf{M}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $(4,4)$ | $(1,8)$ | $(7,7)$ | $(8,10)$ | $(1,7)$ | $(3,1)$ | $(1,1)$ | $(2,8)$ | $(6,4)$ | $(2,2)$ | $(0,5)$ | $(5,5)$ | $(4,7)$ |
| $\mathbf{N}$ | $\mathbf{O}$ | $\mathbf{P}$ | $\mathbf{Q}$ | $\mathbf{R}$ | $\mathbf{S}$ | $\mathbf{T}$ | $\mathbf{U}$ | $\mathbf{V}$ | $\mathbf{W}$ | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{Z}$ |
| $(8,8)$ | $(3,3)$ | $(5,2)$ | $(1,9)$ | $(9,7)$ | $(7,0)$ | $(3,10)$ | $(7,7)$ | $(7,1)$ | $(6,6)$ | $(5,9)$ | $(10,3)$ | $(8,9)$ |

## How do yogi get home?

1. What are the coordinates of point A?
2. What are the coordinates of point $B$ ?
3. What are the coordinates of point C ?
4. What are the coordinates of point $D$ ?
5. Point $B$ is reflected in the mirror line. What are the new coordinates?
6. The triangle is translated right 2 units. What are the new coordinates of vertex A?
7. Point $A$ is reflected in the mirror line and then translated down 2 units. What are the new coordinates?
8. The triangle is translated down 1 unit. What are the new coordinates of vertex B ?
9. Point $D$ is translated 3 units up and 1 unit left. What are the new coordinates?Question here
10. Point $A$ is translated 1 unit right and 3 units down. What are the new coordinates?
$(0,5) \quad K$
11. Point $C$ is reflected in the mirror line. What are the new coordinates?
12. A point is plotted at $(1,7)$ and then reflected in the mirror line. What are the new coordinates?
13. Point $B$ is translated 3 units left and then reflected in the mirror line. What are the new coordinates?
$(4,7)$
M
14. The triangle is translated down 4 units and left 1 unit. What are the new coordinates of vertex C ?
$(4,4) \quad \mathrm{A}$
15. Point $D$ is translated down 1 unit. What are the new coordinates?
$(8,10) \quad D$
$(9,7) \quad$ R
$(6,4)$ I
$(7,1) \quad V$
$(1,7) \quad E$
$(3,10) \quad T$
$(2,8) \quad H$
(1,7) E
16. The triangle is translated left 1 unit and down 3 units. What are the new coordinates of vertex B ?
$(4,4)$
A
$(9,7) \quad \mathrm{R}$
$(7,0)$
S

## Drive their karmas.

