THE STRIVING

MUSLIM ACADEMY

Islamic and Academic Education

STAGE 4 · MATHEMATICS · PRACTICE PACK

Geometry
position and direction

Year 4 of the national curriculum. Every question is worked through at the back, step by step, not just answered.

WHAT IS INSIDE

- Translating a point
- Completing a polygon
- Describing a translation
- How each one is worked

The Striving Muslim Academy

3 sets · a hint on every question

Written for a parent teaching at home. No training assumed, and nothing else to buy.

strivingmuslimacademy.com

Completing a polygon

These get harder as you go down. Do them in order.



1. **Three corners of a rectangle are (7, 5), (13, 5) and (7, 7). Where is the fourth?**
   Two corners share the x value 7 and two share the y value 5.

2. **Three corners of a rectangle are (1, 7), (7, 7) and (1, 11). Where is the fourth?**
   Two corners share the x value 1 and two share the y value 7.

3. **Three corners of a rectangle are (5, 4), (11, 4) and (5, 8). Where is the fourth?**
   Two corners share the x value 5 and two share the y value 4.

4. **Three corners of a rectangle are (3, 6), (5, 6) and (3, 9). Where is the fourth?**
   Two corners share the x value 3 and two share the y value 6.

The Striving Muslim Academy

Quick check

One right answer each. Ring the letter. These are for seeing what has stuck, so do them without working anything out on paper.



1. **Describe the move from (3, 6) to (0, 1).**
   (A) 5 left and 1 down (B) 2 left and 3 down (C) 3 left and 5 down (D) 3 left and 4 down

2. **Three corners of a rectangle are (2, 6), (8, 6) and (2, 8). Where is the fourth?**
   (A) (11, 8) (B) (8, 8) (C) (5, 13) (D) (9, 6)

3. **Three corners of a rectangle are (5, 4), (11, 4) and (5, 8). Where is the fourth?**
   (A) (11, 8) (B) (9, 6) (C) (5, 9) (D) (10, 8)

4. **Describe the move from (4, 9) to (1, 3).**
   (A) 1 left and 4 down (B) 3 left and 6 down (C) 3 left and 1 down (D) 3 left and 5 down

5. **Describe the move from (6, 2) to (1, 1).**
   (A) 3 left and 4 down (B) 3 left and 6 down (C) 5 left and 1 down (D) 1 left and 4 down

6. **Three corners of a rectangle are (1, 7), (7, 7) and (1, 11). Where is the fourth?**
   (A) (5, 13) (B) (10, 8) (C) (7, 11) (D) (13, 7)

7. **The point (6, 2) is translated 1 right and 3 up. Where does it land?**
   (A) (7, 5) (B) (9, 8) (C) (13, 7) (D) (11, 8)

8. **The point (4, 1) is translated 5 right and 5 up. Where does it land?**
   (A) (5, 9) (B) (9, 6) (C) (10, 7) (D) (6, 10)

9. **Describe the move from (8, 5) to (4, 2).**
   (A) 1 left and 4 down (B) 3 left and 5 down (C) 3 left and 6 down (D) 4 left and 3 down

10. **Three corners of a rectangle are (1, 7), (5, 7) and (1, 13). Where is the fourth?**
    (A) (5, 13) (B) (6, 10) (C) (10, 5) (D) (10, 8)

The Striving Muslim Academy

How each one is worked

Every answer here was calculated, not typed. If you find one that is wrong, tell us and we will correct the pack and send it to everybody who has it.



TRANSLATING A POINT

1. The point (1, 9) is translated 5 right and 1 up. Where does it land?

1. Moving right adds to the x coordinate: 1 + 5 = 6.
2. Moving up adds to the y coordinate: 9 + 1 = 10.
3. It lands at (6, 10).

Answer: **(6, 10)**

2. The point (4, 1) is translated 5 right and 5 up. Where does it land?

1. Moving right adds to the x coordinate: 4 + 5 = 9.
2. Moving up adds to the y coordinate: 1 + 5 = 6.
3. It lands at (9, 6).

Answer: **(9, 6)**

3. The point (5, 5) is translated 4 right and 3 up. Where does it land?

1. Moving right adds to the x coordinate: 5 + 4 = 9.
2. Moving up adds to the y coordinate: 5 + 3 = 8.
3. It lands at (9, 8).

Answer: **(9, 8)**

4. The point (4, 7) is translated 5 right and 4 up. Where does it land?

1. Moving right adds to the x coordinate: 4 + 5 = 9.
2. Moving up adds to the y coordinate: 7 + 4 = 11.
3. It lands at (9, 11).

Answer: **(9, 11)**

5. The point (8, 5) is translated 2 right and 2 up. Where does it land?

1. Moving right adds to the x coordinate: 8 + 2 = 10.
2. Moving up adds to the y coordinate: 5 + 2 = 7.
3. It lands at (10, 7).

Answer: **(10, 7)**

6. The point (6, 2) is translated 1 right and 3 up. Where does it land?

1. Moving right adds to the x coordinate: 6 + 1 = 7.
2. Moving up adds to the y coordinate: 2 + 3 = 5.
3. It lands at (7, 5).

Answer: **(7, 5)**

The Striving Muslim Academy

SAMPLE PAGES

You have read a few pages. The pack is longer.

What you are holding is a short sample, taken from different parts of the pack so that you can see how a week is planned and what a child is actually asked to do, before you decide.

The complete pack, and the rest of the academic materials, are on our website: schemes of work for a parent teaching at home, and practice packs for the skills children get stuck on.

The Striving Muslim Academy

strivingmuslimacademy.com

Islamic and Academic Education

Members of the homeschool community do not buy these. If you have joined the community, the pack for the term you are working on is given to you at no cost.

Our Islamic Education classes are free. These packs are part of what pays the teachers who teach them.