THE STRIVING

MUSLIM ACADEMY

Islamic and Academic Education

STAGE 6 · MATHEMATICS · PRACTICE PACK

Algebra

Year 6 of the national curriculum. Every question is worked through at the back, step by step, not just answered.

WHAT IS INSIDE

- Solving one step at a time
- Substituting a number for a letter
- How each one is worked

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2 sets · a hint on every question

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

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Solving one step at a time

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



1. **5x + 9 = 49. Find x.**
   Take the 9 off both sides first.

2. **5x + 16 = 31. Find x.**
   Take the 16 off both sides first.

3. **2x + 13 = 19. Find x.**
   Take the 13 off both sides first.

4. **6x + 19 = 55. Find x.**
   Take the 19 off both sides first.

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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. 4x + 12 = 48. Find x.

(A) x = 5 (B) x = 8 (C) x = 9 (D) x = 6

2. 5x + 16 = 31. Find x.

(A) x = 6 (B) x = 5 (C) x = 2 (D) x = 3

3. Work out 7(n + 4) when n = 5.

(A) 77 (B) 63 (C) 36 (D) 48

4. Work out 4(n + 5) when n = 7.

(A) 120 (B) 48 (C) 36 (D) 63

5. Work out 3(n + 4) when n = 8.

(A) 77 (B) 36 (C) 120 (D) 30

6. 2x + 13 = 19. Find x.

(A) x = 3 (B) x = 9 (C) x = 2 (D) x = 6

7. 4x + 7 = 15. Find x.

(A) x = 5 (B) x = 8 (C) x = 3 (D) x = 2

8. 5x + 9 = 49. Find x.

(A) x = 9 (B) x = 6 (C) x = 2 (D) x = 8

9. 6x + 19 = 55. Find x.

(A) x = 9 (B) x = 6 (C) x = 8 (D) x = 2

10. Work out 8(n + 8) when n = 7.

(A) 30 (B) 63 (C) 60 (D) 120

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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.



SOLVING ONE STEP AT A TIME

1. 5x + 9 = 49. Find x.

1. Take 9 from both sides: 5x = 40.
2. Divide both sides by 5.
3. x = 40 ÷ 5 = 8.

Answer: **x = 8**

2. 5x + 16 = 31. Find x.

1. Take 16 from both sides: 5x = 15.
2. Divide both sides by 5.
3. x = 15 ÷ 5 = 3.

Answer: **x = 3**

3. 2x + 13 = 19. Find x.

1. Take 13 from both sides: 2x = 6.
2. Divide both sides by 2.
3. x = 6 ÷ 2 = 3.

Answer: **x = 3**

4. 6x + 19 = 55. Find x.

1. Take 19 from both sides: 6x = 36.
2. Divide both sides by 6.
3. x = 36 ÷ 6 = 6.

Answer: **x = 6**

5. 7x + 11 = 74. Find x.

1. Take 11 from both sides: 7x = 63.
2. Divide both sides by 7.
3. x = 63 ÷ 7 = 9.

Answer: **x = 9**

6. 4x + 7 = 15. Find x.

1. Take 7 from both sides: 4x = 8.
2. Divide both sides by 4.
3. x = 8 ÷ 4 = 2.

Answer: **x = 2**

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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.

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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.