THE STRIVING

MUSLIM ACADEMY

Islamic and Academic Education

YEARS 7 TO 9 · MATHEMATICS · PRACTICE PACK

Number

The key stage 3 programme of study. The sets get harder through the pack, from arriving in Year 7 to leaving Year 9, and every question is worked through at the back.

WHAT IS INSIDE

- Ordering numbers, including negatives
- Primes, factors and multiples
- Order of operations, powers and roots
- Standard form
- Fractions, decimals and percentages
- Rounding, significant figures and estimating
- How each one is worked

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6 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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Primes, factors and multiples

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



1. **Write 45 as a product of its prime factors.**
   Divide by the smallest prime that goes in, again and again, until you are left with 1.

2. **Write 61 as a product of its prime factors.**
   Divide by the smallest prime that goes in, again and again, until you are left with 1.

3. **Write 49 as a product of its prime factors.**
   Divide by the smallest prime that goes in, again and again, until you are left with 1.

4. **Find the highest common factor of 17 and 15.**
   The HCF is the biggest number that divides into both of them exactly.

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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. Round 806.831 to 1 decimal place.

(A) 61 (B) 5,600 (C) 0.75 (D) 806.8

2. Round 5,927 to 2 significant figures.

(A) 14 (B) 8 (C) 5,900 (D) 36000

3. Write 61 as a product of its prime factors.

(A) 3,600 (B) 5,600 (C) 61 (D) 27

4. Find 60% of 80

(A) 806.8 (B) 91,900 (C) 32 (D) 48

5. Write 5.2×10^5 as an ordinary number.

(A) 12 (B) 5,900 (C) 520000 (D) 91,900

6. Work out (5 + 5) × 4

(A) 40 (B) 520000 (C) 129 (D) 22.5

7. Find the lowest common multiple of 7 and 5.

(A) 0.5 (B) 35 (C) 4 (D) 48

8. Put these in order, smallest first: -36, 13, -7.5, 0

(A) -29, -2.4, 0, 19 (B) -16, -5.6, 0, 40 (C) -21, 0, 1.5, 27 (D) -36, -7.5, 0, 13

9. Work out (2 + 2) × 2

(A) 5300000 (B) 105 (C) 8 (D) 32

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How each one is worked

Every question, with the steps. Mark it together.



ORDERING NUMBERS, INCLUDING NEGATIVES

1. Put these in order, smallest first: -16, 40, -5.6, 0

1. A negative is always smaller than nought, and nought is smaller than any positive, so the negatives go first.
2. Among the negatives, the one furthest from nought is the smallest.
3. In order: -16, -5.6, 0, 40.

Answer: **-16, -5.6, 0, 40**

2. Put these in order, smallest first: -36, 13, -7.5, 0

1. A negative is always smaller than nought, and nought is smaller than any positive, so the negatives go first.
2. Among the negatives, the one furthest from nought is the smallest.
3. In order: -36, -7.5, 0, 13.

Answer: **-36, -7.5, 0, 13**

3. Put these in order, smallest first: -21, 27, 1.5, 0

1. A negative is always smaller than nought, and nought is smaller than any positive, so the negatives go first.
2. Among the negatives, the one furthest from nought is the smallest.
3. In order: -21, 0, 1.5, 27.

Answer: **-21, 0, 1.5, 27**

4. Put these in order, smallest first: -29, 19, -2.4, 0

1. A negative is always smaller than nought, and nought is smaller than any positive, so the negatives go first.
2. Among the negatives, the one furthest from nought is the smallest.
3. In order: -29, -2.4, 0, 19.

Answer: **-29, -2.4, 0, 19**

5. Which is bigger, *59* or *66*?

1. 5 over 9 is 0.5556 as a decimal.
2. 6 over 6 is 1.
3. So ***66*** is bigger.

Answer: ***66***

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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.