Adam's Maths

Learning, growing, alhamdulillah

Key Stage 2 · Ages 9–10

Year 5 · Term 3

Practice & Question Book



Name: _____

Angles and shapes · Position and direction · Decimals · Negative numbers · Converting units · Volume



Assalamu alaikum! I'm Adam.

Welcome to your Year 5, Term 3 maths book. This term our journey takes us to **Masjid al-Aqsa**. I've filled this book with puzzles to practise everything you're learning in class.

- Say **Bismillah** and do **one page** at a time.
- Read **Adam's tip** at the top and write your answers in the ☐ boxes.
- Colour the stars when you finish:
  - ★ Keep trying, insha'Allah
  - ★★ Alhamdulillah, good
  - ★★★ Mashallah, excellent!

My star tracker

Page	Topic	Stars
3	Angles and shapes (part 1)	☆☆☆
4	Angles and shapes (part 2)	☆☆☆
5	Angles and shapes (part 3)	☆☆☆
6	Angles and shapes (part 4)	☆☆☆
7	Angles and shapes (part 5)	☆☆☆
8	Position and direction (part 1)	☆☆☆
9	Position and direction (part 2)	☆☆☆
10	Position and direction (part 3)	☆☆☆
11	Decimals (part 1)	☆☆☆
12	Decimals (part 2)	☆☆☆

Page	Topic	Stars
13	Decimals (part 3)	☆☆☆
14	Negative numbers (part 1)	☆☆☆
15	Negative numbers (part 2)	☆☆☆
16	Negative numbers (part 3)	☆☆☆
17	Converting units (part 1)	☆☆☆
18	Converting units (part 2)	☆☆☆
19	Converting units (part 3)	☆☆☆
20	Volume (part 1)	☆☆☆
21	Volume (part 2)	☆☆☆
22	End-of-term challenge	☆☆☆

For grown-ups: This book follows the Year 5 National Curriculum for England, in the order most schools teach it during the summer term. Every page opens with a verse or hadith about a good value, such as caring for orphans, feeding the hungry, giving from what Allah has given us, spreading salam and looking after the earth. The questions themselves are neutral and SATs-style. Answers start on page 23. Print on A4 at 100% scale and staple down the left-hand side. More free resources at **adamsclassroom.co.uk**.

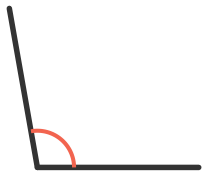
Angles and shapes

Part 1

Adam's tip
Angles on a straight line add up to 180°.

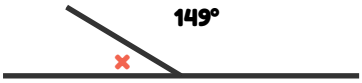
Indeed, I will make upon the earth a successive authority (khalifah). Qur'an 2:30

A Use a protractor to measure each angle.

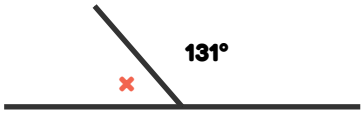




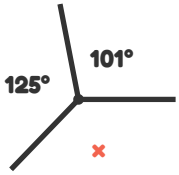

B Find the missing angle x. (Angles on a straight line add up to 180°. Angles around a point add up to 360°.)



x = ____ °



x = ____ °



x = ____ °

C Regular (all sides and angles equal) or irregular?



regular irregular



regular irregular



regular irregular



regular irregular

Angles and shapes

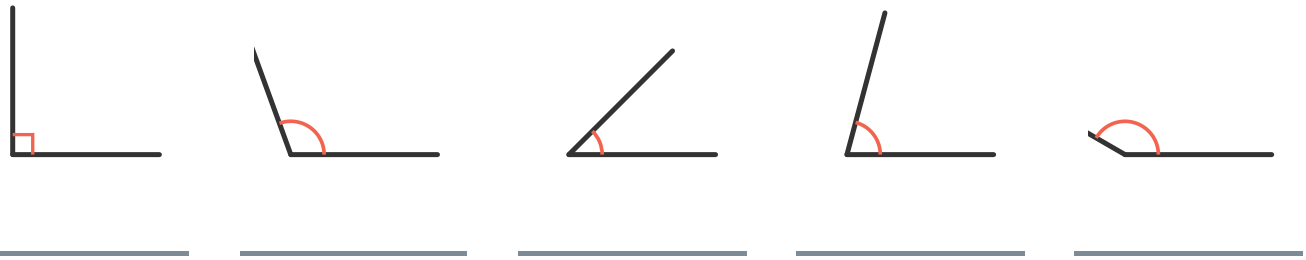
Part 2

Adam's tip
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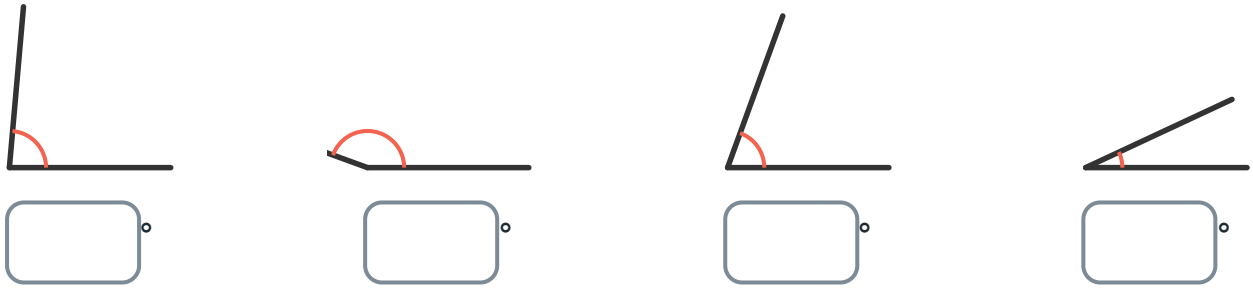
"If a Muslim plants a tree and a bird, a person or an animal eats from it, it is counted as charity for him." **Hadith, Bukhari**

A What type of angle is each one?

Choose from: acute · right angle · obtuse



B Use a protractor to measure each angle.



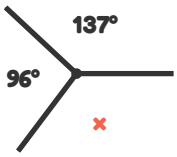
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x = ____ °



x = ____ °



x = ____ °

Angles and shapes

Part 3

Adam's tip
Angles on a straight line add up to 180°.

The Prophet ﷺ told of a man who gave water to a thirsty dog, so Allah thanked him and forgave him. **Hadith, Bukhari**

A Regular (all sides and angles equal) or irregular?



regular irregular



regular irregular



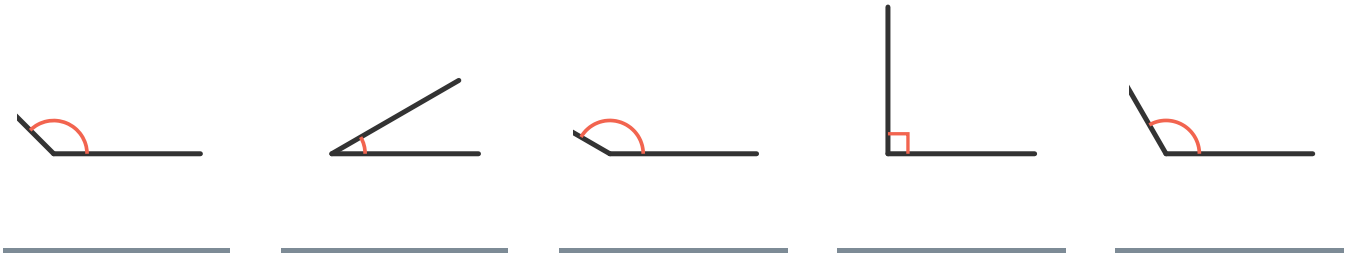
regular irregular



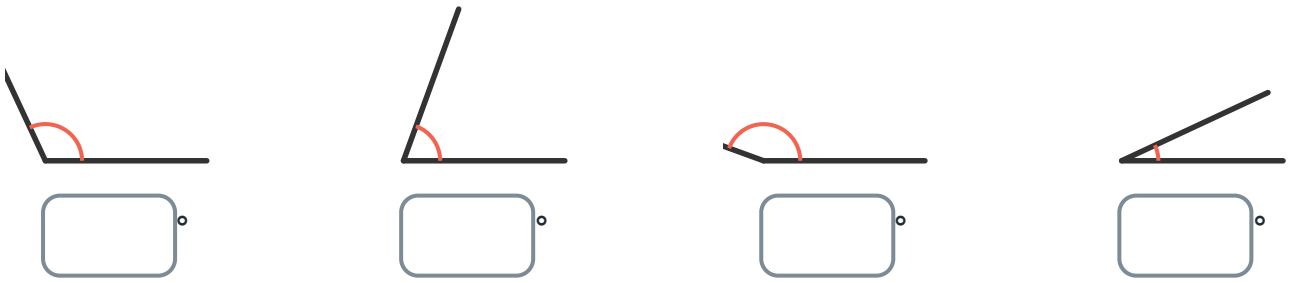
regular irregular

B What type of angle is each one?

Choose from: acute · right angle · obtuse



C Use a protractor to measure each angle.



Angles and shapes

Part 4

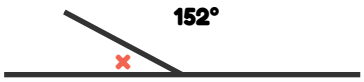
Adam's tip
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Indeed, I will make upon the earth a successive authority (khalifah). Qur'an 2:30

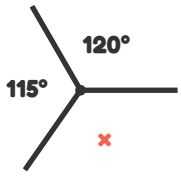
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B Regular (all sides and angles equal) or irregular?



regular irregular



regular irregular



regular irregular



regular irregular

C What type of angle is each one?

Choose from: acute · right angle · obtuse



_____ _____ _____ _____ _____

How did I do? ☆ ☆ ☆

Alhamdulillah for learning!

Angles and shapes

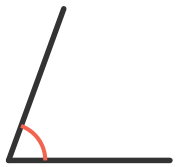
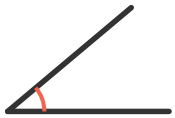
Part 5

Adam's tip
Angles on a straight line add up to 180°.

"If a Muslim plants a tree and a bird, a person or an animal eats from it, it is counted as charity for him." — Hadith, Bukhari

A Use a protractor to measure each angle.



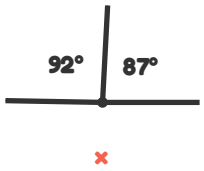
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x = ☐ °



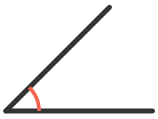
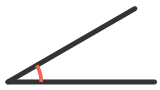
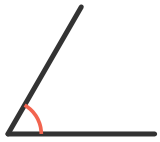
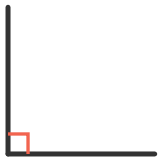
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x = ☐ °

C What type of angle is each one?

Choose from: acute · right angle · obtuse

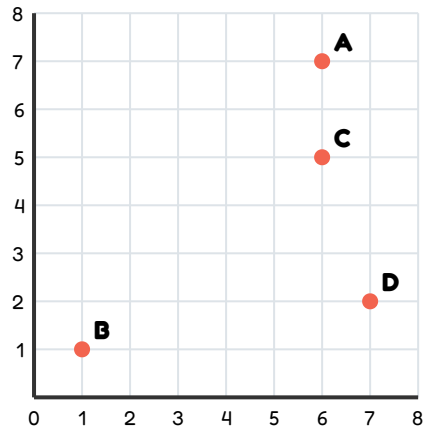
_____ _____ _____ _____ _____

Position and direction Part 1

Adam's tip
A reflection is a mirror image.

The Prophet ﷺ told of a man who gave water to a thirsty dog, so Allah thanked him and forgave him. **Hadith, Bukhari**

A Coordinates: write the coordinates of each point.



A = (☐ , ☐)

B = (☐ , ☐)

C = (☐ , ☐)

D = (☐ , ☐)

Plot point E at (5, 7).

B Translations: where does the point move to?

(3, 4) moves 3 right and 3 up → (☐ , ☐)

(1, 2) moves 2 right and 1 down → (☐ , ☐)

(5, 5) moves 3 left → (☐ , ☐)

(2, 1) moves 1 right and 1 down → (☐ , ☐)

How did I do? ☆ ☆ ☆

Mashallah, well done!



Position and direction Part 2

Adam's tip
A reflection is a mirror image.

Indeed, I will make upon the earth a successive authority (khalifah). **Qur'an 2:30**

A Reflections.

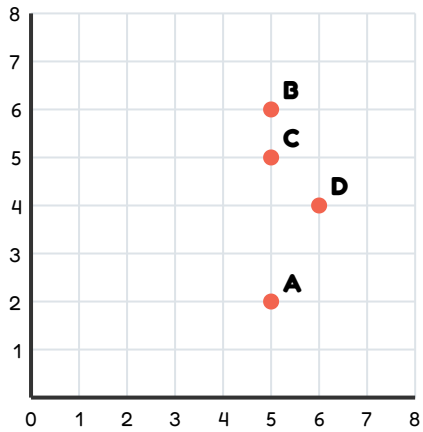
Reflect (4, 2) in the **x-axis** → (☐ , ☐)

Reflect (4, -2) in the **x-axis** → (☐ , ☐)

Reflect (-4, 2) in the **y-axis** → (☐ , ☐)

Reflect (-5, -4) in the **y-axis** → (☐ , ☐)

B Coordinates: write the coordinates of each point.



A = (☐ , ☐)

B = (☐ , ☐)

C = (☐ , ☐)

D = (☐ , ☐)

Plot point E at (6, 2).



Position and direction Part 3

Adam's tip
A reflection is a mirror image.

"If a Muslim plants a tree and a bird, a person or an animal eats from it, it is counted as charity for him." **Hadith, Bukhari**

A Translations: where does the point move to?

(2, 5) moves 2 right and 2 down → (☐ , ☐)

(3, 6) moves 3 right and 2 down → (☐ , ☐)

(3, 2) moves 1 right and 1 up → (☐ , ☐)

(3, 1) moves 3 right and 2 up → (☐ , ☐)

B Reflections.

Reflect (-6, 3) in the **x-axis** → (☐ , ☐)

Reflect (5, -2) in the **x-axis** → (☐ , ☐)

Reflect (-5, 1) in the **y-axis** → (☐ , ☐)

Reflect (2, -6) in the **x-axis** → (☐ , ☐)

C Translations: where does the point move to?

(3, 2) moves 1 right and 1 down → (☐ , ☐)

(5, 5) moves 2 right and 1 down → (☐ , ☐)

(2, 4) moves 1 right and 3 up → (☐ , ☐)

(6, 1) moves 1 right → (☐ , ☐)



Decimals Part 1

Adam's tip
Line up the decimal points when you add or subtract.

"Your smile for your brother is charity." — Hadith, Tirmidhi

A Write <, > or =.

6.86 ◯ 7.76 6.8 ◯ 6.7 6.11 ◯ 6.12

3.59 ◯ 3.69 5.44 ◯ 5.45 8.22 ◯ 8.23

B Round these decimals.

18.28 to 1 decimal place: ☐ 11.22 to 1 decimal place: ☐

56.3 to the nearest whole number: ☐ 83.6 to the nearest whole number: ☐

90.2 to the nearest whole number: ☐ 36.4 to the nearest whole number: ☐

Working out

C Write <, > or =.

0.17 ◯ 0.08 4.27 ◯ 4.37 5.93 ◯ 5.94

2.83 ◯ 2.74 2.2 ◯ 2.11 6.04 ◯ 5.94

How did I do? ☆ ☆ ☆

SubhanAllah, look how you're growing!



Decimals Part 2

Adam's tip
Line up the decimal points when you add or subtract.

Believe in Allah and His Messenger and spend out of that in which He has made you successors. Qur'an 57:7

A Add and subtract decimals.

6.25 + 0.79 = ☐

2.72 + 8.94 = ☐

7.05 + 7.22 = ☐

5.05 − 5.00 = ☐

8.36 + 9.30 = ☐

4.62 + 7.37 = ☐

Working out

B Decimal number bonds to 1.

0.97 + ☐ = 1

0.4 + ☐ = 1

0.63 + ☐ = 1

0.8 + ☐ = 1

0.55 + ☐ = 1

Working out

C Write <, > or =.

4.37 ◯ 4.27

6.18 ◯ 6.08

6.42 ◯ 5.52

0.26 ◯ 0.16

1.51 ◯ 1.52

0.26 ◯ 0.25

How did I do? ☆ ☆ ☆

Keep going, insha'Allah!



Decimals Part 3

Adam's tip
Line up the decimal points when you add or subtract.

And know that your properties and your children are but a trial, and that Allah has with Him a great reward. — Qur'an 8:28

A Percentages.

$\frac{1}{5}$ = ☐ %

10% of 200 = ☐

$\frac{1}{4}$ = ☐ %

59% = $\frac{\square}{100}$ = ☐

2% = $\frac{\square}{100}$ = ☐

Working out

B Round these decimals.

36.18 to 1 decimal place: ☐

10.5 to the nearest whole number: ☐

97.65 to 1 decimal place: ☐

22.5 to the nearest whole number: ☐

95.06 to 1 decimal place: ☐

35.35 to 1 decimal place: ☐

Working out



Negative numbers

Part 1

Adam's tip
Numbers below zero are negative.

"Your smile for your brother is charity." — Hadith, Tirmidhi

A Count through zero.

12 , ☐ , 6 , 3 , 0 , ☐

10 , 7 , 4 , ☐ , ☐ , -5

-3 , -4 , ☐ , -6 , -7 , ☐

-6 , -4 , ☐ , ☐ , 2 , 4

B Temperature differences.

Difference between -2°C and 9°C:

☐ °C

Difference between -9°C and -7°C:

☐ °C

Difference between -1°C and -10°C:

☐ °C

Difference between -10°C and 14°C:

☐ °C

Difference between 9°C and -6°C:

☐ °C

Difference between 1°C and -4°C:

☐ °C



Negative numbers

Part 2

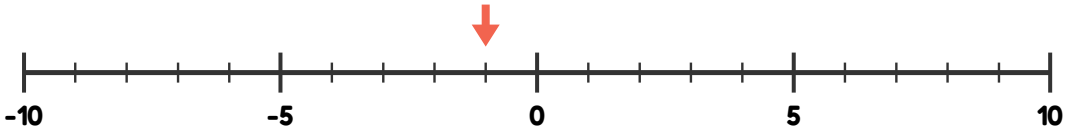
Adam's tip
Numbers below zero are negative.

"Shall I not tell you of something which, if you do it, you will love one another? Spread salam among yourselves." **Hadith, Muslim**

A Order from smallest to largest.

-8	2	4	-12	-6	9

B What number is the arrow pointing to?



C Count through zero.

-1 , 4 , 9 , ☐ , ☐ , 24

-7 , -4 , -1 , 2 , ☐ , ☐

0 , -1 , ☐ , -3 , -4 , ☐

0 , -1 , ☐ , ☐ , -4 , -5

How did I do? ☆ ☆ ☆

Mashallah, you're a star!



Negative numbers

Part 3

Adam's tip
Numbers below zero are negative.

If you are grateful, I will surely increase you. — Qur'an 14:7

A Temperature differences.

Difference between -7°C and 11°C: ☐ °C

Difference between -3°C and 5°C: ☐ °C

Difference between 15°C and 9°C: ☐ °C

Difference between 9°C and -8°C: ☐ °C

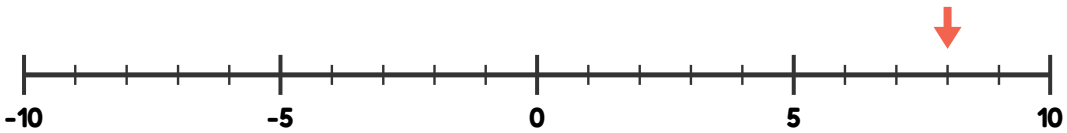
Difference between -3°C and 10°C: ☐ °C

Difference between 4°C and -4°C: ☐ °C

B Order from smallest to largest.

6	-14	-2	-15	1	5
☐	☐	☐	☐	☐	☐

C What number is the arrow pointing to?



☐

How did I do? ☆ ☆ ☆

Mashallah, well done!



Converting units

Part 1

Adam's tip
To change big units to small ones, multiply.

Indeed, I will make upon the earth a successive authority (khalifah). **Qur'an 2:30**

A Convert the units.

500 cm = ☐ m

8,000 mm = ☐ m

7.4 l = ☐ ml

3 l = ☐ ml

9 m = ☐ mm

7 km = ☐ m

Working out

B Add and subtract measures.

394 cm − 150 cm = ☐ cm

357 ml + 283 ml = ☐ ml

401 cm − 325 cm = ☐ cm

274 ml − 273 ml = ☐ ml

Working out

C Circle the best unit.

a bag of potatoes: **g** **kg**

water in a bath: **ml** **l**

a spoonful of medicine: **ml** **l**

a bus: **cm** **m**



Converting units

Part 2

Adam's tip
To change big units to small ones, multiply.

And establish weight in justice and do not make deficient the balance. — Qur'an 55:9

A Convert the units.

9.5 m = ☐ mm

8.8 m = ☐ mm

6,000 m = ☐ km

3,000 g = ☐ kg

4,000 m = ☐ km

6 km = ☐ m

Working out

B Add and subtract measures.

298 m + 294 m = ☐ m

403 cm − 171 cm = ☐ cm

365 ml − 344 ml = ☐ ml

439 ml − 353 ml = ☐ ml

Working out

C Circle the best unit.

a pencil: cm m

water in a bath: ml l

the distance to London: m km

a bag of potatoes: g kg



Converting units

Part 3

Adam's tip
To change big units to small ones, multiply.

Give full measure and weight in justice. — Qur'an 6:152

A Convert the units.

9.7 m = ☐ cm

5.7 m = ☐ cm

4 l = ☐ ml

7 km = ☐ m

7.2 m = ☐ mm

1.5 m = ☐ cm

Working out

B Add and subtract measures.

267 m + 146 m = ☐ m

398 ml − 286 ml = ☐ ml

280 ml − 195 ml = ☐ ml

328 cm + 145 cm = ☐ cm

Working out

C Circle the best unit.

a bag of potatoes: (g) (kg)

a spoonful of medicine: (ml) (l)

a pencil: (cm) (m)

a football pitch: (m) (km)



Volume Part 1

Adam's tip
Volume = length × width × height.

Eat and drink, but be not excessive. Indeed, He likes not those who commit excess. — Qur'an 7:31

A Find the volume of each cuboid (length × width × height).

A cuboid is 9 cm long, 4 cm wide and 2 cm high. Volume = ☐ cm^3

A cuboid is 8 cm long, 3 cm wide and 2 cm high. Volume = ☐ cm^3

A cuboid is 9 cm long, 3 cm wide and 2 cm high. Volume = ☐ cm^3

A cuboid is 5 cm long, 5 cm wide and 4 cm high. Volume = ☐ cm^3

B Convert the units.

8 m = ☐ mm

9 l = ☐ ml

500 cm = ☐ m

6 m = ☐ mm

3,000 g = ☐ kg

5,000 mm = ☐ m

Working out



Volume Part 2

Adam's tip
Volume = length × width × height.

Indeed, I will make upon the earth a successive authority (khalifah). **Qur'an 2:30**

A Find the volume of each cuboid (length × width × height).

A cuboid is 7 cm long, 2 cm wide and 2 cm high. Volume = ☐ cm^3

A cuboid is 3 cm long, 3 cm wide and 3 cm high. Volume = ☐ cm^3

A cuboid is 5 cm long, 6 cm wide and 2 cm high. Volume = ☐ cm^3

A cuboid is 8 cm long, 6 cm wide and 4 cm high. Volume = ☐ cm^3

B Convert the units.

6,000 mm = ☐ m

1.5 km = ☐ m

6.1 m = ☐ cm

8 m = ☐ mm

9 l = ☐ ml

9,000 g = ☐ kg

Working out



Bismillah · Adam's Maths · Year 5 · Term 3 · Masjid al-Aqsa

End-of-term challenge

Adam's tip
Say Bismillah, take your time and check every answer. You can do it!

My Lord, increase me in knowledge. — Qur'an 20:114

Time: 20 minutes **Score: ☐ / 20**

1. 4 ÷ 10 = ☐
2. 8 m = ☐ cm
3. 50 mm = ☐ cm
4. 51,719 + 9,000 = ☐
5. 227,400 − 50,000 = ☐
6. 4 × 8 = ☐
7. 67 ÷ 10 = ☐
8. 9 kg = ☐ g
9. 9 m = ☐ cm
10. 511,662 + 8,000 = ☐
11. 53,326 − 2,000 = ☐
12. 8 × 3 = ☐
13. 53 ÷ 10 = ☐
14. 2 m = ☐ cm
15. 5 kg = ☐ g
16. 38,368 + 20,000 = ☐
17. 1,001,335 − 600,000 = ☐
18. 120 ÷ 10 = ☐
19. 96 ÷ 10 = ☐
20. 7 kg = ☐ g

How did I do? ☆ ☆ ☆

Alhamdulillah for learning!



For grown-ups

Answers

p.3 Angles and shapes (part 1)

A: 100°, 130°, 85°, 160° (±2°)
B: 31°, 49°, 134°
C: regular, regular, irregular, regular

p.4 Angles and shapes (part 2)

A: right angle, obtuse, acute, acute, obtuse
B: 85°, 160°, 70°, 25° (±2°)
C: 146°, 36°, 127°

p.5 Angles and shapes (part 3)

A: irregular, irregular, regular, regular
B: obtuse, acute, obtuse, right angle, obtuse
C: 115°, 70°, 160°, 25° (±2°)

p.6 Angles and shapes (part 4)

A: 129°, 28°, 125°
B: irregular, regular, regular, irregular
C: acute, right angle, obtuse, acute, obtuse

p.7 Angles and shapes (part 5)

A: 85°, 145°, 70°, 40° (±2°)
B: 38°, 35°, 181°
C: acute, acute, acute, acute, right angle

p.8 Position and direction (part 1)

A: A (6, 7), B (1, 1), C (6, 5), D (7, 2); E plotted at (5, 7)
B: (6, 7), (3, 1), (2, 5), (3, 0)

p.9 Position and direction (part 2)

A: (4, -2), (4, 2), (4, 2), (5, -4)
B: A (5, 2), B (5, 6), C (5, 5), D (6, 4); E plotted at (6, 2)

p.10 Position and direction (part 3)

A: (4, 3), (6, 4), (4, 3), (6, 3)
B: (-6, -3), (5, 2), (5, 1), (2, 6)
C: (4, 1), (7, 4), (3, 7), (7, 1)

p.11 Decimals (part 1)

A: <, >, <, <, <, <
B: 18.3, 11.2, 56, 84, 90, 36
C: >, <, <, >, >, >

p.12 Decimals (part 2)

A: 7.04, 11.66, 14.27, 0.05, 17.66, 11.99
B: 0.03, 0.6, 0.37, 0.2, 0.45
C: >, >, >, >, <, >

p.13 Decimals (part 3)

A: 20, 20, 25, 59/100 = 0.59, 2/100 = 0.02
B: 36.2, 11, 97.7, 23, 95.1, 35.4

p.14 Negative numbers (part 1)

A: 9 & -3, 1 & -2, -5 & -8, -2 & 0
B: 11, 2, 9, 24, 15, 5

p.15 Negative numbers (part 2)

A: -12, -8, -6, 2, 4, 9
B: -1
C: 14 & 19, 5 & 8, -2 & -5, -2 & -3



For grown-ups

Answers (continued)

p.16 Negative numbers (part 3)

A: 18, 8, 6, 17, 13, 8
B: -15, -14, -2, 1, 5, 6
C: 8

p.17 Converting units (part 1)

A: 5, 8, 7,400, 3,000, 9,000, 7,000
B: 244, 640, 76, 1
C: kg, l, ml, m

p.18 Converting units (part 2)

A: 9,500, 8,800, 6, 3, 4, 6,000
B: 592, 232, 21, 86
C: cm, l, km, kg

p.19 Converting units (part 3)

A: 970, 570, 4,000, 7,000, 7,200, 150
B: 413, 112, 85, 473
C: kg, ml, cm, m

p.20 Volume (part 1)

A: 72, 48, 54, 100
B: 8,000, 9,000, 5, 6,000, 3, 5

p.21 Volume (part 2)

A: 28, 27, 60, 192
B: 6, 1,500, 610, 8,000, 9,000, 9

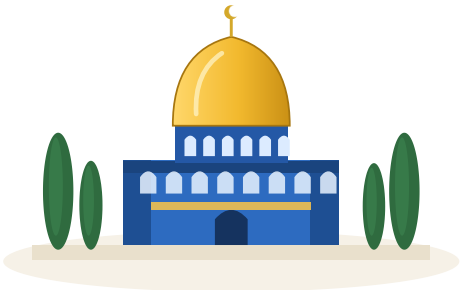
p.22 End-of-term challenge

1) 0.4, 2) 800, 3) 5, 4) 60,719, 5) 177,400, 6) 32, 7) 6.7, 8) 9,000, 9) 900, 10) 519,662, 11) 51,326, 12) 24, 13) 5.3, 14) 200, 15) 5,000, 16) 58,368, 17) 401,335, 18) 12, 19) 9.6, 20) 7,000

Mashallah!

Maths Superstar





This is to say that

_____

has completed **Adam's Maths – Year 5, Term 3**. Alhamdulillah for all your hard work! May Allah bless your learning.

_____ _____

Signed **Date**



Adam's Maths · Year 5

Adam's handy helpers

Multiplication grid

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Fractions, decimals and percentages

Fraction	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{5}$	$\frac{1}{10}$	$\frac{1}{100}$
Decimal	0.5	0.25	0.75	0.2	0.1	0.01
Percentage	50%	25%	75%	20%	10%	1%

Units: 1 km = 1,000 m · 1 m = 100 cm · 1 kg = 1,000 g · 1 l = 1,000 ml · 5 miles ≈ 8 km · 1 inch ≈ 2.5 cm

Rabbi zidni ‘ilma — “My Lord, increase me in knowledge.” (Qur’an, Ta-Ha 20:114)