Year 6 maths answers 5 A Day WEEK 6

DAY 1

1. 4200
2. 1300
3. 1170
4. 50.922
5. 5/15 = 1/3

DAY 2

1. 161,394
2. 150
3. 818
4. 21/4 = 5 1/4
5. 356 r 6

DAY 3

1. 2815
2. 800
3. 40
4. 7395
5. 1.22

DAY 4

1. 14382
2. 150
3. 4/3 = 1 1/3
4. 90
5. 396 r 7

DAY 5

1. 210
2. 2.55
3. 131,481
4. 11.895
5. 3815

Practice answers

P 1

The height of a door could be measured in metres (m) or centimetres (cm).
The volume of water in a glass would be measured in millilitres (ml).
The length of a pencil point would be measured in millimetres (mm).
The mass of a person would be measured in kilograms (kg).
The length of a reading book would be measured in centimetres (cm).
The mass of a rubber would be measured in grams (g).

P 2

a) An elephant weighs approximately 5 tonnes.

b) An drinking glass holds approximately 0.2l.

c) A man has a height of approximately 1.8m.

P 3

g	kg
1500	1.5
800	0.8
3010	3.01
2950	2.95

2)

kg	tonnes
7000	7
1500	1.5
900	0.9
4080	4.08

P 4

ml	l
7500	7.5
950	0.95
65	0.065
1990	1.99

P 5

mm	cm	m	km
200 000	20 000	200	0.2
412 000	41 200	412	0.412
1 100 000	110 000	1100	1.1

P 6

Mr Smith needs to fill buckets of water. A large bucket holds 6 litres and a small bucket holds 4 litres. If a jug holds 250 ml and a bottle holds 500 ml suggest some ways of using the jug and bottle to fill the buckets.

There will be multiple ways to solve this. Here are some.

Small bucket:

- 2 bottles and 12 jugs
- 6 bottles and 4 jugs

Large bucket:

- 8 bottles and 8 jugs
- 6 bottles and 12 jugs

Evidence answers

ARE 1

30 x 85m = 2550m or 2.5km
Daniel walks approximately 2500m or 2.5km to primary school. To estimate the distance to his brother's secondary school: 2.5 x 9 = 22.5km

ARE 2

Assuming no rest breaks are taken. All answers are approximations only.

a) 30km

b) 120km

c) 840km

d) 43 800km

ARE 3

a) True. 1.7km and 1.700km show the same amount in km and 1700m is equal to 1.7km.

b) False. 10 001g < 10.1kg < 0.1 tonnes

ARE 4

1) 0.11l = Bottle D
0.9l = Bottle E
150ml = Bottle B
0.25l = Bottle A
775ml = Bottle C

ARE 5

2) a) Mass of one box: 2.35g x 38 = 89.3g
Mass of 30 boxes: 2.679kg

ARE 6

Finlay has a piece of string which measures 0.9m. He cuts off a piece measuring 15cm and then cuts the remaining string into three equal pieces. How long is each piece?

25cm or 0.25m

ARE 7

Mo cycles 45 miles over the course of 3 days. On day 1, he cycles 16 km. On day 2, he cycles 10 miles further than he did on day 1 How far does he cycle on day 3? Give your answer in miles and in kilometres.	On day 1 he cycles 16 km / 10 miles. On day 2 he cycles 32 km / 20 miles. On day 3 he cycles 24 km / 15 miles.

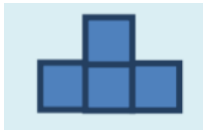
ARE 8

The distance between Cardiff and London is 240 km. A car is travelling at 60 mph. How long will it take them to get to London from Cardiff?	240 km ≈ 150 miles $150 \div 60 = 2\frac{1}{2}$ hours Or 60 miles ≈ 96 km $240 \div 96 = 2\frac{1}{2}$ hours

ARE 9

Chen, Megan and Sam have parcels. Megan's parcel weighs 1.2kg and Chen's parcel is 1500g and Sam's parcel is half the weight of Megan's parcel. Write down some other statements about the parcels. How much heavier is Chen's parcel than Megan's?	Megan's = 1.2kg Chen's = 1.5kg Sam's = 0.6kg Chen's weighs 300g more than Megan's. Other statements could include: Chen's parcel is 1½ times heavier than Sam's or Sam's weighs 0.6kg less than Megan's.

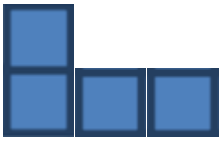
ARE 10

A square has the perimeter of 12 cm. When 4 squares are put together, the perimeter of the new shape can be calculated. For example: 

What arrangements will give the maximum perimeter?

If the square's perimeter = 12cm, each side = 3cm. The perimeter of the shape given is 30cm.

There are many other arrangements with a perimeter of 30cm, including:



If you thought outside the box, you may have come up with this which has a perimeter of 54cm:

Problem solving answers

1) 42cm (A) + 22.5cm (B) + 47.5cm (C) = 112cm

2) 35cm (A) + 22.5cm (B) + 47.5cm (C) = 105cm

3) Various answers are possible to make a total length of 220cm.
For example:
Parcel D height of 500mm + parcel E length of 0.85m + parcel F length of 850mm = 2.2m
Parcel D height of 500mm + parcel E height of 50cm + parcel F height of 1.2m = 2.2m
Parcel D height of 400mm + parcel E length of 0.9m + parcel F length of 900mm =2.2m