Functional Skills Mathematics | Level 1

Division Practice

Questions

Q1.

Paulo works at a football club. The total ticket sales for each of the last 6 matches are shown in the table below.

Ticket sales					
match 1	match 2	match 3	match 4	match 5	match 6
6200	5600	6400	6800	7200	8300

Paulo thinks the average ticket sales for these matches is over 6500

Is Paulo correct?

Show a check of your working.

(4)

Use the space below to show clearly how you get your answer.
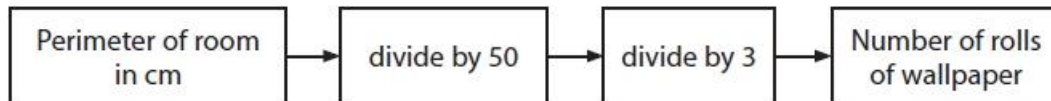
Use the space below to show your check.

(Total for question = 4 marks)

Q2.

Ged is a decorator.

He is going to put wallpaper on the walls in the living room for a customer.

Ged uses this rule to work out how many rolls of wallpaper he needs.

Perimeter of room in cm	→	divide by 50	→	divide by 3	→	Number of rolls of wallpaper

Ged knows the perimeter of the room is 1800 cm.

He works out he will need 11 rolls of wallpaper.

Is Ged correct?

Show why you think this.

(3)

Use the space below to show clearly how you get your answer.

(Total for question = 3 marks)

Q3.

Mrs Finney and her son make £120 selling their clothes online.

They decide to share the money so that for every £1 Mrs Finney gets her son gets £2

Mrs Finney thinks she should get £50

Is Mrs Finney correct?

Show why you think this.

(3)

Use the space below to show clearly how you get your answer.

Q4.

There is a bouncy castle at a local fun day.
The safety rule says.

> **Bouncy castle**
>
> 1 adult for every 5 children

30 children can go on this bouncy castle.

(b)   How many adults are needed for 30 children to safely use the bouncy castle?

Show why you think this.

(2)

Use the space below to show clearly how you get your answer.

(Total for question = 2 marks)

Q5.

Tanya completes an assessment.

To pass the assessment a student needs to get at least 75% of the total marks.
The total mark for this assessment is 140

Tanya scored 108 marks.
Tanya thinks she has passed the assessment.

Has Tanya passed the assessment?

Show a check of your working.

(3)

Use the space below to show clearly how you get your answer.

Write your check in the space below.

(Total for question = 3 marks)

Q6.

Ian wants a loan.
He uses this information to tell the bank manager about his earnings.

Monthly earnings					
Sept	Oct	Nov	Dec	Jan	Feb
£5 800	£3 600	£4 200	£1 500	£2 000	£2 800

Ian needs to tell the bank manager the range of his earnings and his average monthly earnings.

Calculate the range and average monthly earnings for Ian.

(4)

Use the space below to show clearly how you get your answer.

(Total for question = 4 marks)

Q7.

Anne also works in a restaurant.
She gets a wage of £240 each week.

Anne owes her mum £1200

She says

   "I will pay my mum back in 26 weeks if I give her 25% of my wage each week."

Is Anne correct?

Show why you think this.

(3)

Use the space below to show clearly how you get your answer.

(Total for question = 3 marks)

Q8.

Gosia needs to travel to her friend's house by train.

The price of her ticket is £103.80

Gosia has a railcard.

She uses the railcard to get $\frac{1}{3}$ off the price of her ticket.

How much is $\frac{1}{3}$ of £103.80?
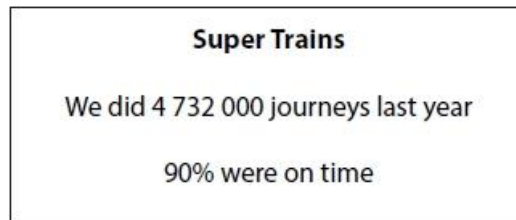
Show a check of your working.

(3)

Use the space below to show clearly how you get your answer.

Show your check in the space below.

(Total for question = 3 marks)

Q9.

Sandro sees this poster at the station.

Super Trains

We did 4 732 000 journeys last year

90% were on time

What is 90% of 4 732 000?

Show a check of your answer.

(3)

Use the space below to show clearly how you get your answer.

Write your check in the space below.

(Total for question = 3 marks)

Q10.

The normal price for a ticket to a theme park is £12
There is a discount for groups.

A group of 10 people will save $\frac{1}{5}$ of the normal price.

Aquil thinks a group of 10 people will save £25 in total.

Will a group of 10 people save £25 in total?

Show a check of your working.

(4)

Use the space below to show clearly how you get your answer.

Use the space below to show your check.

(Total for question = 4 marks)

Mark Scheme

Q1.

PROCESS	MARK	EVIDENCE
Begins to work with averages	1 or	6400 + 5600 + 6200 + 6800 + 7200 + 8300 (= 40500) OR 6500 × 6(=39000)
Full process to find average or figures to compare	2 or	'40500' ÷ 6 (= 6750) OR 6400 + 5600 + 6200 + 6800 + 7200 + 8300 (= 40500) and 6500 × 6(=39000)
Correct decision from accurate figures	3	Yes and 6750 OR Yes and 40500 and 39000 NB Median acceptable for full marks
Shows a valid check	1	Check by reverse calculation, alternate method or approximation

Q2.

PROCESS	MARK	EVIDENCE
Starts to substitute in formula	1 or	1800 ÷ 50(=36) OR 11 × 3(=33)
Completes substitution	2 or	'36' ÷ 3(=12) OR '33' × 50(=1650)
Correct decision with accurate figures	3	No and 12 (rolls) OR No and 1650 (cm) OR No and 1 roll short

Q3.

PROCESS	MARK	EVIDENCE
Starts to work with ratio	1 or	1 + 2(=3) OR 50 × 2(=100) OR Build up method to an equivalent ratio
Full process to find figures to compare	2 or	120 ÷ '3'(=40) OR 50 × '3'(=150) or 50 + '100'(=150) OR 120 ÷ 50(=2.4) OR Complete build up method
Correct conclusion with accurate figures	3	No and (£)40 OR No and (£)150 OR No and 2.4 and 3

Q4.

PROCESS	MARK	EVIDENCE
Works with ratio	1 or	$30 \div 5 (=6)$ **OR** Complete build up method **OR** $6 \times 5 (=30)$
Correct answer	2	6 (adults)

Q5.

PROCESS	MARK	EVIDENCE
Process to calculate with percentages	1 or	$75 \div 100 \times 140 (=105)$ oe **OR** $108 \div 140 (= 0.77..)$ **and** $75 \div 100 (= 0.75)$ oe **OR** $108 \div 140 \times 100 (=77..)$
Correct decision with accurate figures	2	Yes AND 105 (marks) **OR** Yes AND 0.77.. **and** 0.75 oe **OR** Yes AND 77(%)
Valid check	1	Valid check, e.g. alternative method or reverse process

Q6.

PROCESS	MARK	EVIDENCE
Finds range	1	4300 from correct process
Starts process to calculate mean or median	1 or	$5800 + 3600 + 4200 + 1500 + 2000 + 2800$ (=19900) **OR** 1500, 2000, 2800, 3600, 4200, 5800
Develops calculation	2 or	'19900' $\div$ 6 (3316.66….) **OR** 2800, 3600 indicated as mid point **OR** $2800 + 3600 \div 2 (=3200)$
Correct answer to two decimal places	3	(£)3316.67 **OR** (£) 3200

Q7.

PROCESS	MARK	EVIDENCE
Works with percentage	1	240 ÷ 100 × 25(=60) oe
Full process to find figures to compare	1 or	1200 ÷ '60'(=20) **OR** 26 × '60'(=1560)
Correct conclusion and accurate figure(s)	2	No **and** 20 (weeks) **OR** No **and** (£)1560 (pay back sooner)

Q8.

PROCESS	MARK	EVIDENCE
Process to work with 1/3	1 or	103.8 ÷ 3(=34.6) **OR** Allow 103.8 × 0.33...(=34.25..) oe **OR** Allow methods using 2/3 for this mark only
Correct answer in correct money notation	2	£34.60 (correct money notation)
Valid check	1	E.g. reverse calculation **or** estimation **or** alternative method

Q9.

PROCESS	MARK	EVIDENCE
Process to calculate percentage	1 or	90 ÷ 100 × 4 732 (000) (=4258800) oe
Accurate figures	2	4 258 800
Valid check	1	Valid check e.g alternative method or reverse calculation or estimation

Q10.

PROCESS	MARK	EVIDENCE
Begins to work with cost or fraction	1 or	e.g. 10×12 (=120) **OR** $12 \div 5$ (=2.4) **OR** $25 \div 10$ (=2.5)
Full process to find figures to compare	2 or	e.g. '120' $\div 5$ (=24) **OR** '2.4' $\times 10$ (=24) **OR** $12 \div 5$ (=2.4) **and** $25 \div 10$ (=2.5)
Valid decision with accurate figures	3	e.g. No **AND** (£)24(.00) **OR** No **AND** (£)2.4(0) **and** (£)2.5(0)
Valid check	1	Valid check, e.g. reverse calculation or alternative method or estimation