Maths Level 1
Topic Workbook

10 Topics • 20 Questions Each • 200 Questions Total

Practise every topic tested in the L1 exam.
Circle your answer, then check against the answer sheet.

rewired for parents

1. Fractions, Decimals & Percentages

Q1
Convert 3/4 to a percentage.

A) 50%
B) 60%
C) 75%
D) 80%

Q2
Convert 40% to a fraction (simplest form).

A) 4/10
B) 2/5
C) 4/5
D) 1/4

Q3
Convert 0.35 to a percentage.

A) 3.5%
B) 35%
C) 0.35%
D) 350%

Q4
Convert 7/8 to a decimal.

A) 0.78
B) 0.85
C) 0.875
D) 0.9

Q5
Which is largest: 2/3, 0.6, or 65%?

A) 2/3
B) 0.6
C) 65%
D) All equal

Q6
Write 0.125 as a fraction.

A) 1/4
B) 1/5
C) 1/8
D) 1/10

Q7

Convert 5/6 to a decimal (2 d.p.).

A) 0.83
B) 0.56
C) 0.85
D) 0.63

Q8
What is 3/5 as a percentage?

A) 30%
B) 35%
C) 55%
D) 60%

Q9
Order smallest first: 70%, 3/4, 0.72

A) 70%, 0.72, 3/4
B) 0.72, 70%, 3/4
C) 3/4, 0.72, 70%
D) 70%, 3/4, 0.72

Q10
Convert 1/3 to a percentage (nearest %).

A) 30%
B) 33%
C) 35%
D) 37%

Q11
0.6 as a fraction (simplest form)?

A) 6/10
B) 3/5
C) 2/3
D) 6/100

Q12
Convert 12.5% to a decimal.

A) 0.0125
B) 0.125
C) 1.25
D) 12.5

Q13
Which is smallest: 1/4, 0.3, 20%?

A) 1/4
B) 0.3

C) 20%
D) All equal

Q14
Write 45% as a decimal.

A) 4.5
B) 0.45
C) 0.045
D) 45.0

Q15
Convert 0.08 to a percentage.

A) 0.8%
B) 8%
C) 80%
D) 0.08%

Q16
What fraction = 60%?

A) 3/4
B) 2/3
C) 3/5
D) 4/5

Q17
Convert 2/5 to a decimal.

A) 0.2
B) 0.25
C) 0.4
D) 0.45

Q18
Order largest first: 0.85, 4/5, 82%

A) 0.85, 4/5, 82%
B) 0.85, 82%, 4/5
C) 4/5, 82%, 0.85
D) 82%, 4/5, 0.85

Q19
1/20 as a percentage?

A) 2%
B) 5%
C) 10%
D) 20%

Q20

Convert 37.5% to a fraction.

A) 3/8
B) 3/7
C) 5/8
D) 37/100

2. Percentages of Amounts

Q1
Find 25% of 80.

A) 15
B) 20
C) 25
D) 40

Q2
Find 10% of 350.

A) 3.5
B) 30
C) 35
D) 70

Q3
Find 15% of 200.

A) 15
B) 25
C) 30
D) 35

Q4
Coat £120, 20% off. Sale price?

A) £24
B) £80
C) £96
D) £100

Q5
Find 5% of 460.

A) 23
B) 46
C) 92
D) 230

Q6
Meal £45, 12% tip. Tip amount?

A) £4.50
B) £5.40
C) £6.00
D) £6.40

Q7

Find 30% of 150.

A) 30
B) 40
C) 45
D) 50

Q8
Phone was £400, 35% off. New price?

A) £140
B) £260
C) £265
D) £280

Q9
Find 2.5% of 600.

A) 12
B) 15
C) 25
D) 150

Q10
House rises 8% from £250,000. New price?

A) £258,000
B) £260,000
C) £270,000
D) £280,000

Q11
Find 75% of 360.

A) 90
B) 180
C) 240
D) 270

Q12
Jacket £85, up 20%. New price?

A) £100
B) £102
C) £105
D) £108

Q13
VAT 20% on £65. Total?

A) £72
B) £76

C) £78
D) £85

Q14
Find 40% of 85.

A) 32
B) 34
C) 36
D) 38

Q15
Car loses 15% of £12,000. Value after?

A) £1,800
B) £10,200
C) £10,800
D) £11,200

Q16
Find 1% of 4,500.

A) 4.5
B) 45
C) 450
D) 4,500

Q17
Item costs £36 after 10% discount. Original?

A) £32.40
B) £39.60
C) £40
D) £42

Q18
Find 17.5% of 240.

A) 40
B) 42
C) 48
D) 50

Q19
Population 8,000 grows 3%. New total?

A) 8,024
B) 8,030
C) 8,240
D) 8,300

Q20

Shirt 25% off, now £33. Original?

A) £36
B) £40
C) £44
D) £48

3. Ratio & Proportion

Q1
Simplify 12:8.

A) 6:4
B) 3:2
C) 4:3
D) 2:1

Q2
Simplify 45:30.

A) 9:6
B) 3:2
C) 15:10
D) 9:5

Q3
Share £60 in ratio 2:3.

A) £20 and £40
B) £24 and £36
C) £25 and £35
D) £30 and £30

Q4
Share 40 sweets in ratio 3:5.

A) 12 and 28
B) 15 and 25
C) 16 and 24
D) 20 and 20

Q5
Recipe for 4: 300g flour. For 6?

A) 400g
B) 425g
C) 450g
D) 500g

Q6
Scale 1:25,000. 4cm on map = real?

A) 100m
B) 250m
C) 1km
D) 10km

Q7

Boys:girls = 5:3. 40 total. Boys?

A) 20
B) 24
C) 25
D) 30

Q8
Drink: 1 squash : 4 water. Squash in 2L?

A) 200ml
B) 400ml
C) 500ml
D) 800ml

Q9
Simplify 24:36:12.

A) 4:6:2
B) 6:9:3
C) 2:3:1
D) 8:12:4

Q10
3 painters: 8 hours. 6 painters?

A) 2hrs
B) 4hrs
C) 6hrs
D) 16hrs

Q11
Share £150 in ratio 1:2:3.

A) £25,£50,£75
B) £30,£50,£70
C) £50,£50,£50
D) £20,£40,£90

Q12
2 eggs for 12 cakes. Eggs for 30?

A) 4
B) 5
C) 6
D) 8

Q13
Red:blue = 3:1. 2L total. How much red?

A) 500ml
B) 1L

C) 1.2L
D) 1.5L

Q14
Car: 5L per 60km. For 150km?

A) 10L
B) 12.5L
C) 15L
D) 20L

Q15
£1=EUR1.15. £200 to euros?

A) EUR173.91
B) EUR215
C) EUR230
D) EUR250

Q16
Concrete 1:2:3. 180kg total. Cement?

A) 20kg
B) 30kg
C) 45kg
D) 60kg

Q17
Photo 4x6cm, enlarge 3:1. New size?

A) 7x9cm
B) 8x12cm
C) 12x18cm
D) 16x24cm

Q18
8 apples = £2.40. Cost of 5?

A) £1.20
B) £1.50
C) £1.80
D) £2.00

Q19
Ratio 7:3. Larger share = £35. Total?

A) £45
B) £48
C) £50
D) £55

Q20

Scale 1:50. Model 15cm. Real?

A) 7.5m
B) 75m
C) 750cm
D) 0.75m

4. Mean, Median, Mode & Range

Q1
Mean of: 4, 7, 9, 12, 8

A) 7
B) 8
C) 9
D) 10

Q2
Median of: 3, 7, 1, 9, 5

A) 1
B) 5
C) 7
D) 9

Q3
Mode of: 4, 2, 7, 4, 9, 4, 6

A) 2
B) 4
C) 6
D) 7

Q4
Range of: 15, 23, 8, 31, 12

A) 15
B) 19
C) 23
D) 31

Q5
Mean of 5 numbers is 12. Total?

A) 17
B) 48
C) 60
D) 72

Q6
Scores: 6,8,8,9,10,7. Median?

A) 7
B) 7.5
C) 8
D) 8.5

Q7

Data: 3,3,5,5,5,7. Mode?

A) 3
B) 5
C) 7
D) 3 and 5

Q8
Temps: -2, 5, 3, -1, 8. Range?

A) 6
B) 8
C) 10
D) 13

Q9
Ages: 21, 24, 27, 30. Mean?

A) 24
B) 25
C) 25.5
D) 26

Q10
Marks: 45, 62, 73, 58, 62. Mode?

A) 45
B) 58
C) 62
D) 73

Q11
Median of: 12,14,17,21,25,30

A) 17
B) 19
C) 21
D) 22

Q12
Mean=15. Values: 12,18,14,?,16. Find ?

A) 13
B) 15
C) 17
D) 20

Q13
Heights: 165,172,158,180,165. Mode?

A) 158
B) 165

C) 172
D) No mode

Q14
Wages: £320,350,350,400,1200. Best average?

A) Mean
B) Median
C) Mode
D) Range

Q15
Range of: 2.5, 3.1, 1.8, 4.2, 3.7

A) 1.1
B) 2.1
C) 2.4
D) 3.1

Q16
Mean of: 100,120,80,90,110

A) 90
B) 95
C) 100
D) 105

Q17
7 values. Median position?

A) 3rd
B) 4th
C) 5th
D) 7th

Q18
Shoes: 6,7,7,8,8,8,9,10. Mode?

A) 7
B) 8
C) 9
D) 7 and 8

Q19
Adding 20 to data: range increases by 5. Old max?

A) 10
B) 12
C) 15
D) 18

Q20

Mean of 3,5,7,9,x is 6. Find x.

A) 4
B) 5
C) 6
D) 8

5. Area & Perimeter

Q1
Area: rectangle 12m x 7m?

A) 38m2
B) 72m2
C) 84m2
D) 96m2

Q2
Perimeter: rectangle 15cm x 9cm?

A) 24cm
B) 38cm
C) 48cm
D) 135cm

Q3
Area: triangle base 10cm, height 8cm?

A) 18cm2
B) 40cm2
C) 80cm2
D) 160cm2

Q4
Square perimeter 36cm. Side?

A) 6cm
B) 8cm
C) 9cm
D) 12cm

Q5
Circle area, radius 7cm (pi=3.14)?

A) 21.98cm2
B) 43.96cm2
C) 153.86cm2
D) 307.72cm2

Q6
Circumference, diameter 10cm (pi=3.14)?

A) 15.7cm
B) 31.4cm
C) 62.8cm
D) 78.5cm

Q7

Parallelogram: base 8m, height 5m?

A) 13m2
B) 26m2
C) 40m2
D) 80m2

Q8
Room 5.5m x 4m. Carpet £12/m2?

A) £114
B) £228
C) £264
D) £288

Q9
Trapezium: sides 6cm,10cm, height 4cm?

A) 24cm2
B) 28cm2
C) 32cm2
D) 40cm2

Q10
Semicircle perimeter, diameter 14cm?

A) 21.98cm
B) 35.98cm
C) 43.96cm
D) 57.96cm

Q11
L-shape: 10x6 minus 4x3. Area?

A) 42m2
B) 48m2
C) 52m2
D) 60m2

Q12
Circular pond, radius 3m. Area?

A) 9.42m2
B) 18.84m2
C) 28.26m2
D) 56.52m2

Q13
Triangle sides 5,12,13cm. Perimeter?

A) 25cm
B) 28cm

C) 30cm
D) 35cm

Q14
Square area 64cm2. Side?

A) 4cm
B) 8cm
C) 16cm
D) 32cm

Q15
Garden 25x15m, 1m path around. Path area?

A) 78m2
B) 80m2
C) 82m2
D) 84m2

Q16
Circumference, radius 5cm?

A) 15.7cm
B) 31.4cm
C) 62.8cm
D) 78.5cm

Q17
Right triangle: legs 6cm, 8cm. Area?

A) 14cm2
B) 24cm2
C) 48cm2
D) 96cm2

Q18
Rectangle area 54cm2, width 6cm. Length?

A) 6cm
B) 8cm
C) 9cm
D) 12cm

Q19
Quarter circle, radius 8cm. Area?

A) 12.56cm2
B) 25.12cm2
C) 50.24cm2
D) 200.96cm2

Q20

Fencing 40x25m field at £8/m?

A) £520
B) £1,000
C) £1,040
D) £8,000

6. Ratio, Proportion & Best Value

Q1
400g cheese £3.20. Price per 100g?

A) £0.40
B) £0.60
C) £0.80
D) £1.00

Q2
A: 500ml £1.50. B: 750ml £2.10. Better?

A) A
B) B
C) Same
D) Cannot tell

Q3
3 tins = £2.67. Cost of 5?

A) £3.95
B) £4.25
C) £4.45
D) £4.75

Q4
Car: 45mpg. Fuel for 315 miles?

A) 5 gal
B) 6 gal
C) 7 gal
D) 8 gal

Q5
Recipe for 6: 450g. For 8?

A) 500g
B) 550g
C) 600g
D) 650g

Q6
£1=EUR1.12. EUR280 to pounds?

A) £225
B) £250
C) £280
D) £313.60

Q7

Small 200g £1.60. Large 500g £3.50. Better?

A) Small
B) Large
C) Same
D) Cannot tell

Q8
5 workers: 12 days. 10 workers?

A) 3 days
B) 6 days
C) 24 days
D) 60 days

Q9
£1=$1.27. $508 to pounds?

A) £300
B) £350
C) £400
D) £450

Q10
1.5kg apples £2.70. Cost of 2kg?

A) £3.00
B) £3.20
C) £3.40
D) £3.60

Q11
A: 3 for £5. B: 2+1 free at £2.20. For 3?

A) A
B) B
C) Same
D) Cannot tell

Q12
120 bottles in 8 min. In 1 hour?

A) 720
B) 840
C) 900
D) 960

Q13
800g rice £1.20. 2kg £2.80. Better?

A) 800g
B) 2kg

C) Same
D) Cannot tell

Q14
Bus: 24km in 40min. Speed km/h?

A) 24
B) 30
C) 36
D) 48

Q15
Paint: 12m2/litre. Cover 42m2?

A) 3L
B) 3.5L
C) 4L
D) 4.5L

Q16
£1=CHF1.08. £350 to francs?

A) CHF324
B) CHF378
C) CHF350
D) CHF380

Q17
Train: 180 miles in 2.5hrs. Speed?

A) 60mph
B) 68mph
C) 72mph
D) 80mph

Q18
9in pizza £6. 12in pizza £9. Better per inch?

A) Small
B) Large
C) Same
D) Cannot tell

Q19
Petrol 142.9p/L. Fill 45L?

A) £60.31
B) £64.31
C) £68.31
D) £72.31

Q20

£11.44/hr. Overtime 1.5x. Rate?

A) £15.16
B) £16.16
C) £17.16
D) £18.16

7. Probability

Q1
Fair dice. P(getting 4)?

A) 1/4
B) 1/6
C) 1/3
D) 4/6

Q2
Bag: 3R, 5B, 2G. P(blue)?

A) 1/5
B) 3/10
C) 1/2
D) 5/10

Q3
Coin flipped twice. P(two heads)?

A) 1/2
B) 1/3
C) 1/4
D) 1/8

Q4
Spinner: 1,2,3,4,5. P(odd)?

A) 1/5
B) 2/5
C) 3/5
D) 4/5

Q5
Cards 1-10. P(prime)?

A) 2/5
B) 3/10
C) 4/10
D) 1/2

Q6
P(rain)=0.3. P(no rain)?

A) 0.3
B) 0.5
C) 0.7
D) 1.3

Q7

4 red, 6 blue. P(not red)?

A) 2/5
B) 3/5
C) 4/10
D) 4/6

Q8
P=0 means?

A) Certain
B) Likely
C) Unlikely
D) Impossible

Q9
Dice rolled 60 times. Expected 6s?

A) 6
B) 10
C) 12
D) 15

Q10
P(event)=3/8. P(not)?

A) 3/8
B) 4/8
C) 5/8
D) 8/3

Q11
10 chocs: 4M, 3D, 3W. P(milk or dark)?

A) 3/10
B) 4/10
C) 7/10
D) 1

Q12
Two dice. P(total=12)?

A) 1/6
B) 1/12
C) 1/36
D) 2/36

Q13
Letter from MATHEMATICS. P(vowel)?

A) 3/11
B) 4/11

C) 5/11
D) 6/11

Q14
P(win)=0.15. Wins in 200 games?

A) 15
B) 20
C) 25
D) 30

Q15
P(A)=0.4, P(B)=0.25 (independent). P(A and B)?

A) 0.10
B) 0.15
C) 0.65
D) 1.00

Q16
5R, 3B. Take 1 red, no replace. P(2nd red)?

A) 4/8
B) 5/8
C) 4/7
D) 5/7

Q17
Which is impossible? 0.5, -0.1, 3/4, 1

A) 0.5
B) -0.1
C) 3/4
D) 1

Q18
P(A)=0.6. P(not A)?

A) 0.4
B) 0.6
C) 1.0
D) 1.6

Q19
Spinner: 1/4R, 1/4B, 1/2G. 80 spins. Expected green?

A) 20
B) 30
C) 40
D) 60

Q20

8 balls. P(yellow)=1/4. How many yellow?

A) 1
B) 2
C) 3
D) 4

8. Tables, Charts & Graphs

Q1
Bar: Mon15,Tue20,Wed10,Thu25,Fri30. Total?

A) 90
B) 95
C) 100
D) 105

Q2
From above: range?

A) 15
B) 20
C) 25
D) 30

Q3
Pie: 1/4 Bus out of 120. How many?

A) 20
B) 25
C) 30
D) 40

Q4
Pie chart 90 degree sector = what fraction?

A) 1/2
B) 1/3
C) 1/4
D) 1/8

Q5
Two-way: Boys walk=12, bus=18. Total boys?

A) 12
B) 18
C) 24
D) 30

Q6
Sales rise £5k to £8k in 4 months. Avg increase?

A) £500
B) £750
C) £1,000
D) £1,500

Q7

Strong positive correlation means?

A) x up, y up
B) x up, y down
C) No link
D) x causes y

Q8
Freq: 0-9(5), 10-19(12), 20-29(8). Total?

A) 20
B) 25
C) 30
D) 35

Q9
Dual bar: A=45, B=38 in June. Difference?

A) 5
B) 7
C) 8
D) 12

Q10
Pie: Walk 120, Bus 90, Car 150 degrees. 360 people walk?

A) 90
B) 100
C) 120
D) 150

Q11
Stem 3|2 5 7 8 means?

A) 3,2,5,7,8
B) 32,35,37,38
C) 3.2-3.8
D) 325,378

Q12
Grouped freq: 0-4(3), 5-9(7), 10-14(5). Modal group?

A) 0-4
B) 5-9
C) 10-14
D) Cannot tell

Q13
Time series graph best for?

A) One point
B) Categories

C) Data over time
D) Parts of whole

Q14
Pie: 25% Football. Angle?

A) 25 deg
B) 45 deg
C) 60 deg
D) 90 deg

Q15
Negative correlation: TV hours vs test scores?

A) More TV = higher
B) More TV = lower
C) No link
D) TV causes bad

Q16
Two-way: Girls cycle=8, don't=22. Total girls?

A) 8
B) 22
C) 28
D) 30

Q17
Composite bar: A=30, B=45. Total height?

A) 15
B) 30
C) 45
D) 75

Q18
Frequency polygon midpoint of 10-20?

A) 10
B) 12
C) 15
D) 20

Q19
Pie sector = 72 degrees. As percentage?

A) 15%
B) 18%
C) 20%
D) 25%

Q20

Stem 5|1 3 3 7. Mode?

A) 51
B) 53
C) 57
D) 5

9. Scale, Conversion & Units

Q1
Convert 2.5km to metres.

A) 25m
B) 250m
C) 2,500m
D) 25,000m

Q2
Convert 4,800g to kg.

A) 0.48kg
B) 4.8kg
C) 48kg
D) 480kg

Q3
3hrs 45min to minutes.

A) 195
B) 210
C) 225
D) 245

Q4
Scale 1:200. Drawing 8cm. Real?

A) 16m
B) 160m
C) 1600cm
D) 1.6m

Q5
1 inch=2.54cm. 10 inches?

A) 20.4cm
B) 25.0cm
C) 25.4cm
D) 30.0cm

Q6
5.2 litres to ml.

A) 52ml
B) 520ml
C) 5,200ml
D) 52,000ml

Q7

1 mile=1.6km. 50 miles?

A) 31.25km
B) 50km
C) 80km
D) 100km

Q8

150 minutes to hrs+min.

A) 1hr 50min
B) 2hrs 10min
C) 2hrs 30min
D) 2hrs 50min

Q9

1kg=2.2lbs. 70kg?

A) 31.8lbs
B) 140lbs
C) 154lbs
D) 170lbs

Q10

Scale 1:50,000. 6cm on map?

A) 300m
B) 3km
C) 30km
D) 300km

Q11

0.75 hours to minutes.

A) 35
B) 40
C) 45
D) 50

Q12

1 gal=4.5L. 8 gallons?

A) 32L
B) 36L
C) 40L
D) 44L

Q13

Scale 1:100. Wall 4.5cm on plan. Actual?

A) 0.45m
B) 4.5m

C) 45m
D) 450m

Q14
2.3 tonnes to kg.

A) 23kg
B) 230kg
C) 2,300kg
D) 23,000kg

Q15
5ft 8in in cm (1ft=30cm, 1in=2.5cm).

A) 158cm
B) 168cm
C) 170cm
D) 178cm

Q16
90km/h to m/s (divide by 3.6).

A) 15m/s
B) 20m/s
C) 25m/s
D) 30m/s

Q17
1cm=2m. Room 3.5x2.5cm. Real area?

A) 8.75m2
B) 17.5m2
C) 35m2
D) 70m2

Q18
45C to F (F=Cx1.8+32).

A) 81F
B) 97F
C) 113F
D) 125F

Q19
Map 3.5cm. Scale 1:25,000. Real?

A) 87.5m
B) 875m
C) 8.75km
D) 87.5km

Q20

3,600 seconds to hours.

A) 0.5hr
B) 1hr
C) 1.5hrs
D) 2hrs

10. Number Skills & Problem Solving

Q1
LCM of 6 and 8?

A) 12
B) 16
C) 24
D) 48

Q2
HCF of 18 and 24?

A) 2
B) 3
C) 6
D) 12

Q3
Round 4.756 to 2 d.p.

A) 4.75
B) 4.76
C) 4.80
D) 5.00

Q4
Estimate 3.9 x 5.1

A) About 15
B) About 20
C) About 25
D) About 30

Q5
(-5) + (-3) = ?

A) -2
B) -8
C) 2
D) 8

Q6
(-4) x (-6) = ?

A) -24
B) -10
C) 10
D) 24

Q7

12 squared?

A) 24
B) 48
C) 124
D) 144

Q8
Square root of 169?

A) 11
B) 12
C) 13
D) 14

Q9
1/3 off £72. Sale price?

A) £24
B) £36
C) £48
D) £54

Q10
Order: -3,5,-1,0,-4 smallest first.

A) -4,-3,-1,0,5
B) -3,-4,-1,0,5
C) 0,-1,-3,-4,5
D) -1,-3,-4,0,5

Q11
15% of 80 + 20% of 50?

A) 12
B) 20
C) 22
D) 24

Q12
Simple interest: £500, 4%, 3 years?

A) £20
B) £40
C) £60
D) £80

Q13
£80 to £92. % increase?

A) 12%
B) 13%

C) 14%
D) 15%

Q14
250 to 200. % decrease?

A) 15%
B) 20%
C) 25%
D) 50%

Q15
Bus every 15min from 07:00. First after 08:20?

A) 08:20
B) 08:25
C) 08:30
D) 08:45

Q16
2 cubed x 5 squared?

A) 30
B) 100
C) 200
D) 250

Q17
Tank 450L, 2/5 full. Litres?

A) 90
B) 150
C) 180
D) 225

Q18
Electricity: 25p/day + 14p/kWh. 8kWh cost?

A) £1.12
B) £1.25
C) £1.37
D) £1.50

Q19
Number doubled minus 5 = 31. Number?

A) 13
B) 15
C) 18
D) 21

Q20

Compound: £1,000, 5%, 2 years. Total?

A) £1,050
B) £1,100
C) £1,102.50
D) £1,150