

Pegasys Educational Publishing

A stylized grey silhouette of a Pegasus, a mythical winged horse, standing on a small patch of ground. The Pegasus is facing left and has its wings spread. Behind it are two tall, pointed structures resembling church spires or towers.

CFE Resources National 4

Numeracy

Worksheet Pack

❖ **Answers**

Please note: many more relevant examples on this Numeracy unit can be found within our very extensive National 4 Pack 3 - Unit NUM item CE5 in our most current order form. Thank you.

ANSWERS

N4 - Four Rules with Whole Numbers and Decimals

1. (a) 3310 metres (b) 82 metres

2. 42

3. 125 g

4.

12	13	1	8
6	3	15	10
7	2	14	11
9	16	4	5

5. 20 days

6. (a) 33000, 47000, 50000, 39000 (b) 332

7. (a) 324 (b) 176

8. (a) 6.15 metres (b) 7 metres (c) £25.90

9. 543 mg

10. 41.8 cm

11. 4.4 g

12. Total is 3.4m so Gerry has enough wood

13. £445

N4 - Rounding and Calculations (1)

1. (a) 30 (b) 860 (c) 490 (d) 80

(e) 560 (f) 1240 (g) 570 (h) 800

2. (a) 1400, 1000 (b) 4600, 5000 (c) 900, 1000 (d) 8500, 8000

(e) 26300, 26000 (f) 87500, 88000 (g) 145600, 146000 (h) 100500, 100000

3. (a) 57 (b) 9 (c) 6 (d) 15

(e) 29 (f) 342 (g) 123 (h) 9

4. (a) 26.3 (b) 8.5 (c) 34.7 (d) 2.6

(e) 14.8 (f) 23.9 (g) 39.6 (h) 7.7

(i) 29.3 (j) 1.6 (k) 68.7 (l) 4.3

(m) 124.0 (n) 18.9 (o) 4.5 (p) 13.0

5. (a) 36.34 (b) 8.12 (c) 3.79 (d) 22.16

(e) 4.72 (f) 7.86 (g) 14.66 (h) 17.38

(i) 6.24 (j) 6.56 (k) 1.79 (l) 9.27

(m) 13.70 (n) 8.99 (o) 17.60 (p) 2.91

6. (a) 14.8 (b) 2.6 (c) 1.7 (d) 22.1 (e) 27.4 (f) 44.6

7. (a) 31.79 (b) 16.81 (c) 181.43 (d) 65.93 (e) 7.67 (f) 9.63

8. (a) 0.43 (b) 0.58 (c) 0.56 (d) 0.08

9. (a) £4 (b) £26 (c) £4 (d) £13

10. (a) £4.25 (b) £25.89 (c) £4.09 (d) £12.85

11. (a) £4.42 (b) 6p

12. £1.25

13. 17p and 18p

N4 - Rounding and Calculations (2) - Significant Figures

1. (a) 40 (b) 200 (c) 5 (d) 2
(e) 5 (f) 1000 (g) 40 (h) 7
(i) 9 (j) 30000 (k) 70 (l) 400
(m) 100 (n) 9 (o) 200 (p) 90
2. (a) 36 (b) 7.5 (c) 46 (d) 2.1
(e) 14 (f) 34 (g) 28 (h) 250
(i) 460 (j) 2500 (k) 1100 (l) 260000
(m) 1200 (n) 190 (o) 0.015 (p) 0.0031
3. (a) 130 (b) 4.8 (c) 57
(d) 990 (e) 8.8 (f) 330
(g) 20 (h) 26 (i) 0.16
(j) 330 (k) 2.1 (l) 0.96
4. (a) 220 metres (b) 1300 steps (c) 37000 wavelengths (d) 0.02

N4 - Calculations Involving Simple Fractions

1. (a) 34 (b) 132 (c) 414 (d) 36p
(e) 162kg (f) 23p (g) 63cm (h) £6.16
(i) 90kg (j) 24p (k) £5.40 (l) £945
(m) 6.88cm (n) £138 (o) 6p (p) 1.28kg
2. £250
3. (a) £4500 (b) £1500
4. (a) 20 (b) 15 (c) 10
5. 355
6. 150
7. 110

N4 - Calculations Involving Simple Percentages

1. (a) 12 (b) 63 (c) 4.8kg (d) 40p
(e) £4.80 (f) 51g (g) 7.5cm (h) £120
(i) 72p (j) 6p (k) £3.90 (l) 98kg
(m) £33 (n) 81p (o) £7 (p) 23.4kg
2. £16.80
3. £39
4. Team A 24; team B 20; team C 60
5. 480
6. 6 minutes
7. £48
8. (a) 104 (b) 120 (c) 128

N4 - Problems Involving Percentages

1. Clock Radio: £31.50; Skate Board: £21.60
Yo Yo: £10.80 Video Camera: £415.80
CD Player: £111.33 Cool Shades: £14.85
2. Camera (a) £12 (b) £72
Shades (a) £5.20 (b) £31.20
Ring (a) £46 (b) £276
CD (a) £2.40 (b) £14.40
Skates (a) £9.60 (b) £57.60
Bike (a) £36 (b) £216
CD Player (a) £29.60 (b) £177.60
3. £10.75
4. 1200ml
5. £14.04
6. 128
7. £456
8. £5216
9. 12.6 gallons
10. No, sofa would cost £210
11. (a) £6110 (b) £1225
12. Strawberry

N4 - Managing Time (1) - 12 hour time

1. (a) 3 hours (b) 9 hours (c) 5 hours
(d) 13 hours (e) 13 hours (f) 22 hours
2. (a) 5 hours 30 minutes (b) 4 hours 30 minutes
(c) 3 hours 45 minutes (d) 3 hours 45 minutes
(e) 6 hours 45 minutes (f) 13 hours 30 minutes
3. (a) 6 hours (b) 4 hours 15 minutes
(c) 5 hours 15 minutes (d) 12 hours 15 minutes
(e) 10 hours 15 minutes (f) 14 hours 45 minutes
4. 40 minutes
5. 5 hours 35 minutes
6. 8 hours 50 minutes
7. 16 hours 15 minutes
8. (a) 1.50pm (b) 12.50pm (c) 4.50pm
9. (a) 10.25pm (b) 12.16am
(c) 3.15pm (d) 2.10am
10. (a) 12.25am (b) 12.47pm
(c) 6.35am (d) 10.35am

N4 - Managing Time (2) - 24 hour time

- (a) 40 minutes (b) 23 minutes (c) 38 minutes
(d) 16 minutes (e) 40 minutes (d) 32 minutes
- (a) 3 hours 25 minutes (b) 5 hours 25 minutes (c) 2 hours 10 minutes
(d) 1 hour 20 minutes (e) 13 hours 20 minutes (f) 2 hours 35 minutes
(g) 14 hours 35 minutes (h) 17 hours 35 minutes (i) 5 hours 33 minutes
(j) 1 hour 43 minutes (k) 3 hours 49 minutes (l) 4 hours 39 minutes
- (a) 0930 (b) 1615 (c) 1620 (d) 1710 (e) 2125 (f) 1930
- (a) 1058 (b) 1230 (c) 1616 (d) 1021 (e) 1543 (f) 0441
- 0938
- 0827
- (a) 2320 (b) 10 minutes
- 1811

N4 - Speed, Distance & Time (1) - Calculating Distance

- (a) 180 km (b) 225 miles (c) 210 km
(d) 51 km (e) 26 miles (f) 20 km
- (a) 2240 km (b) Can't complete journey in 8 hours as it would take 8·214.... hours
- (a) 153 km (b) 162 km
- 45 km
- 120 km
- 117 miles

N4 - Speed, Distance & Time (2) - Calculating Speed

- (a) 80 km/h (b) 320 km/h (c) 48 mph (d) 8 km/h
(e) 6 km/h (f) 8 km/h (g) 56 mph
- (a) 76 km/h
(b) 36 mph
(c) i) 3 hours 30 minutes ii) 40 mph
- 3 m/s.
- 52 mph
- (a) 15 minutes (b) 38 km/h
- 8·8mph

N4 - Speed, Distance & Time (3) - Calculating Time

- (a) 5 hours (b) 11 hours (c) 1 hour 30 minutes
(d) 11 hours 30 minutes (e) 1 hour 15 minutes (f) 8 hours 45 minutes
- 2 hours 45 minutes
- (a) 2 hours 20 minutes (b) 45 minutes (c) 40 minutes (d) 1205
- 0610
- He will be on time as he will arrive at 1405

N4 - Speed, Distance & Time (4)

- 893.8 miles
- (a) Yes, he will arrive at 12.15 pm. (b) 162 km
- (a) 9.15 am (b) 90 km/h
- Sam by 3 minutes
- (a) 1110 (b) 75 km

N4 - Perimeter and Area of a Rectangular Composite Shape

- (a) 27cm^2 ; 22cm (b) 51cm^2 ; 32cm (c) 324cm^2 ; 88cm
(d) 381cm^2 ; 92cm (e) 226cm^2 ; 82cm (f) 623cm^2 ; 140cm
- (a) 42cm^2 (b) 378mm^2 (c) 1.92m^2

N4 - Volume of a Cube & Cuboid

- (a) 72cm^3 (b) 512mm^3 (c) 1280cm^3
- (a) 25.2cm^3 (b) 28cm^3 (c) 120cm^3 (d) 1000cm^3
- (a) 343cm^3 (b) 1331cm^3 (c) 125mm^3 (d) 1.728m^3
- (a) 49 cubes (b) 60cm^3
- (a) $48\text{cm} \times 32\text{cm} \times 12\text{cm}$ (b) 18432cm^3
- 15 litres

N4 - Ratio and Proportion

- (a) £16 : £20 (b) £90 : £60 (c) 18kg : 30kg (d) 30cm : 42cm
- (a) £15, £45, £60 (b) £11, £22, £44
- 16 girls
- 40 bags
- (a) 20 dogs (b) 21 emeralds (c) £2400, £4000
- (a) £1.50 (b) £10.50 (c) £30
- (a) £8.50 (b) £127.50 (c) £255
- (a) 104km (b) 260km (c) 34 litres
- (a) 21kg (b) 40 loaves
- 144 minutes
- 160
- £34
- 75 mls
- (a) 5 : 2 (b) £1500
- 2 litres
- £210
- £61.74

N4 - Interpreting and Using Charts, Graphs and Tables

- (a) Curry Powder 10g; Coriander 5g; Italian Seasoning 5g
(b) Curry Powder 32g; Italian Seasoning 16g
- Peter did a survey of the makes of cars in his street. The results are shown in the table:
(a) Check pupil's diagram (b) 4 (c) 29
- (a) Special K (b) Sugar Puffs (c) 31 (d) 5
- (a) Check pupil's diagram (b) Weetabix (c) Coco Pops (d) 9
- (a) 113 (b) 13
- (a) John (b) John 20; Joseph 10; James 5; Mick 5 (c) Check pupil's diagram

7. (a)

Time	Tally	Frequency
3.00 - 3.59		5
4.00 - 4.59		4
5.00 - 5.59		1

(b) Check pupil's diagram (c) 3.00 - 3.59

8. (a) 42 hours (b) 7 hours (c) 1.4, 1.9, 0.7, 0.4, 0.7, 0.9

9. (a)

Intensity	1.0 - 1.9	2.0 - 2.9	3.0 - 3.9	4.0 - 4.9	5.0 - 5.9	6.0 - 6.9	7.0 - 7.9
Tally							
Total	1	5	6	3	2	2	1

(b) Check pupil's diagram (c) 3.0 - 3.9

10. (a) Check pupil's diagram

(b) Upwards, downwards then upwards again from middle of month onwards.

(c) 21.32

(d) Any relevant comments about the graphs.

11. (a) David (b) 1 hour 15 minutes (c) 45 minutes

N4 - Simple Probability

1. (a) (i) 20 (ii) 20

(b) (i) 15 (ii) 5 (iii) 0

2. (a) 14 (b) $\frac{2}{3}$

3. $\frac{2}{3}$

4. (a) $\frac{1}{4}$ (b) $\frac{1}{2}$ (c) $\frac{3}{4}$

5. (a) $\frac{1}{5}$ (b) $\frac{14}{25}$

6. (a) 0.3 (b) 10 (c) 0.4 (d) $\frac{6}{7}$

7. (a) $\frac{3}{13}$ (b) $\frac{5}{6}$

8. 36 squares

9. (a) $\frac{3}{10}$ (b) $\frac{3}{5}$

10. 170

N4 - Reading and Using Scales

1. (a) 1.5kg (b) 0.275kg

2. (a) 70ml (b) 175ml (c) 45ml

3. (a) 12°F (b) 54°F (c) 72°

(d) 6.5°F (e) 10.25°F

4. (a) 70km/h (b) 2 hours 30 minutes

5. (a) 128 km/h (b) 224 km/h (c) 40 km/h (d) 152 km/h

6. (a) 95 gallons (b) 35 gallons

7. 26 kg

8. 2.8 kg