

National 3 - Revision for Numeracy Unit

You may use a calculator

Fractions

1. Find :-

a $\frac{3}{4}$ of 36

b $\frac{2}{3}$ of 24

c $\frac{3}{7}$ of 21

d $\frac{4}{5}$ of 35

e $\frac{9}{10}$ of 210

f $\frac{5}{12}$ of 144

g $\frac{7}{8}$ of 648

h $\frac{5}{6}$ of 144

i $\frac{3}{4}$ of 32

2. A coat costing £138 is reduced by $\frac{1}{3}$.

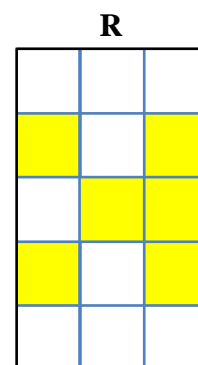
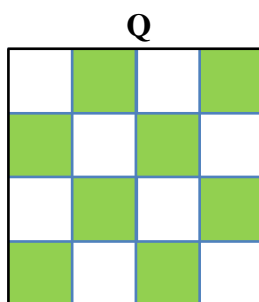
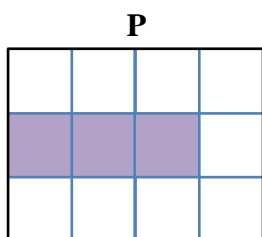
a How much money is the coat reduced by?

b What is the reduced price of the coat?

3. Aisha has 36 balloons. She sells $\frac{2}{9}$ of them. How many balloons has she got left?

4. Ken has saved £5.60. Paula has saved $\frac{3}{8}$ more than Ken. How much has Paula saved?

5.



Look at these diagrams.

a Which diagram has $\frac{6}{15}$ shaded?

b Which diagram has $\frac{3}{12}$ shaded?

c Which diagram has $\frac{1}{2}$ shaded?

d Which diagram has $\frac{1}{4}$ shaded?

Percentages

6. Find :-

- | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|
| a 25% of £840 | b 50% of 121kg | c $33\frac{1}{3}\%$ of 135mm |
| d 25% of 108mm | e 10% of £5.60 | f 25% of 300p |
| g 50% of £9.00 | h $66\frac{2}{3}\%$ of 126kg | i 75% of 9600kg |
| j $66\frac{2}{3}\%$ of 1.2kg | k 75% of £440 | l $33\frac{1}{3}\%$ of 360m |

Money

7. Tony is a delivery man. He gets paid £6.40 per hour.
If he works for 6 hours each day, what does he get paid for a day?

8. Annette sees this job advertised on an internet site.
How much is the weekly pay for this job?

PAY: £10.36 per HOUR

GENERAL PRACTICE NURSE Further info

WEEKLY HOURS: 34

9. A senior staff nurse position is advertised online.

How much is the weekly pay for this position.

BASE PAY: £13.22/ HOUR

OTHER PAY: COMPETITIVE

Senior Staff Nurse

CONTRACTED HOURS: 33 hrs/wk

Apply Now

10. A single from Newcraighall to Edinburgh Waverley costs £1.32. What does a return journey cost?

11. The Glass family consist of two adults and two children aged 13 and 9. They are going on a package holiday. The prices for the holiday are as follows:

Prices:

Adults: £525 per adult per week

Children (aged 11 and under): £192 per child per week

What is the total price of the package holiday for one week for the whole family?

12. Sunshine Travel offer a Mediterranean holiday for £420 per person.

To encourage larger groups they offer the following savings:

- Second person in a group gets a 10% discount
- Third person in a group gets a 20% discount
- Fourth person in a group gets a 30% discount

a What is the total cost of the holiday for a party of four?

b Tantastic Travel charge £400 per person but the fourth person in a group only pays half price.

How much would the party of four save by travelling with Tantastic Travel instead of Sunshine Travel?

Time

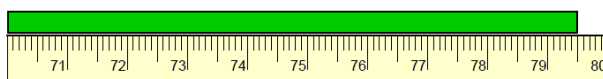
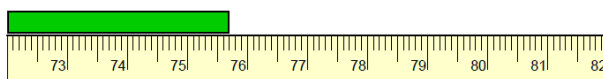
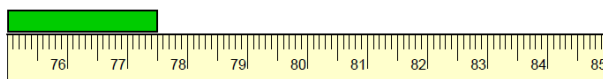
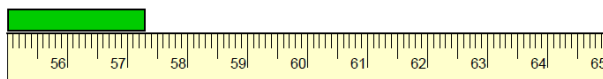
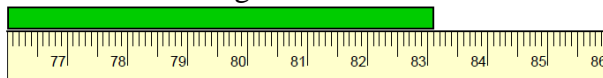
13. The bus timetable from Glasgow to Dundee is shown below.

| | | | |
|----------|-------|-------|-------|
| Glasgow | 09 50 | 11 30 | 14 30 |
| Stirling | 10 30 | 12 10 | 15 10 |
| Perth | 11 22 | 13 02 | 16 06 |
| Dundee | 12 06 | 13 46 | 16 50 |

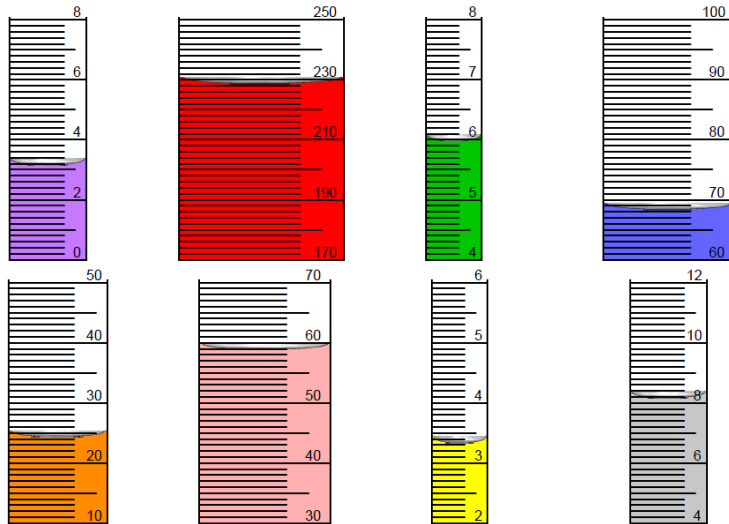
- a The last bus leaves Glasgow at 1430.
What time does it arrive in Dundee?
- b Write this in 12 hour time
(Remember to put am or pm)
- c How long does it take to travel between Glasgow and Stirling?
- d Omar needs to be in Dundee at 1 p.m.
He lives in Stirling.
What bus should he get?

Measurement

14. What is the reading in cm for each ruler?



15. What is the reading in millilitres for each graduated cylinder?



Maps and Scales



16. a It takes 8 miles to travel from Haddington to Tranent and 12 miles to travel from Haddington to Musselburgh.

How many miles is it from Tranent to Musselburgh?

Look at the map above.

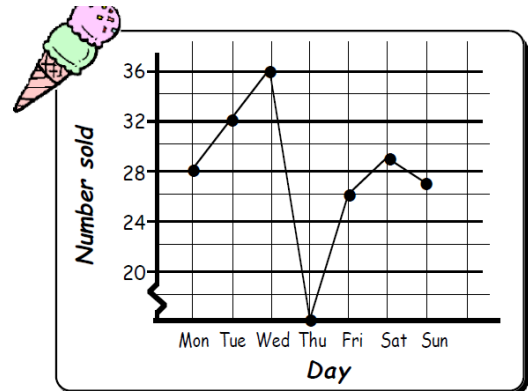
b The straight line drawn on the map indicates the distance between Haddington and East Linton.

What is the actual distance of this journey in miles?

Information Handling

17. The line graph shows the sales of Tony's ice-cream one week in July.

- a How many ice-cream's did Tony sell on
 (i) Monday (ii) Friday
 (iii) Saturday (iv) Sunday
- b Tony was ill one day and could not drive his van to work.



What day was Tony ill?

- c What day do you think was the hottest day? Explain.
 d What was the total number of ice-creams sold that week?
 e What was the mean (average) number of ice-creams sold per day over the seven days? Round your answer to the nearest whole number.

18. Pupils were asked to name their favourite fruit.

| | | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|
| apple | apple | banana | orange | apple | banana | apple | apple |
| banana | orange | apple | banana | pear | grapes | banana | orange |
| apple | banana | grapes | grapes | apple | grapes | grapes | banana |
| pear | apple | banana | banana | grapes | apple | apple | grapes |

- a Complete this frequency table, using tally marks to help complete it.

| Fruit | Tally | Frequency |
|--------|-------|-----------|
| apple | | |
| orange | | |
| banana | | |
| grapes | | |
| pear | | |

- b Now draw and label a neat bar-graph to help represent this information.

Answers

1. Find :-

a 27
d 28
g 567

b 16
e 189
h 120

c 9
f 60
i 24

2. **a** £46
b £92

3. 28

4. £7.70

5. **a** R
b P
c Q
d P

6. **a** £210
d 27mm
g £4.50
j 0.8kg

b 60.5kg
e £0.56
h 84kg
k £330

c 45mm
f 75p
i 7200kg
l 120m

7. £352.24

8. £352.24

9. £436.26

10. £2.64

11. £1767

12. **a** £1428
b Tantastic Travel = £1400, so you would save £28

13. **a** 1650
b 4.50pm
c 40 mins
d 1030

14. **a** 83.1cm
d 75.7cm

b 57.3cm
e 79.5cm

c 77.5cm

15. **a** 3.4ml
e 25ml

b 230ml
f 60ml

c 6.1ml
g 3.5ml

d 69ml
h 8.4ml

16. **a** 4 miles
b 5 miles

17. a (i) 28 (ii) 26
(iii) 29 (iv) 27
b Thursday

c Wednesday, most ice cream sales.

d 178

e $178 \div 7 = 25$

18. a Apple 11, Orange 3, Banana 9, Grapes 7, Pear 2
b **See your Teacher.**