Central South Consortium
Consortiwm Canolbarth y De
Joint Education Service
Gwasanaeth Addysg ar y Cyd

EAS
Education Achievement Service
for South East Wales
Gwasanaeth Cyflawni Addysg
i Dde Ddwyrain Cymru

ERW
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Education through Regional Working
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GwE
Tuag at Ragoriaeth
Towards Excellence

Teacher assessment

Key stages 2 and 3

Mathematics: learner profile

Level 5

Foreword

This profile is intended to help teachers see the type of evidence that can be used to take to a cluster meeting, in order to support the best-fit judgements made. It also clearly demonstrates that the evidence predominantly lies in a pupil's book and hence is what is already available to the teacher.

The profile also includes a detailed commentary which provides clarity on why the best-fit judgment was awarded. There is no suggestion or expectation that a learner profile is produced for every pupil in the cohort or that teachers write such an extensive commentary.

Learner Profile Mathematics Level 5

8-9-14

L.O: To use and apply place value

1. 3502 = 3000 ✓✓

2. 7321 = 300 ✓✓

3. 43,062 = 3000 ✓✓

4. 39,540 = 30,000 ✓✓

5. 305,642 = 300,000 ✓✓

6. 630,790 = 30,000 ✓✓

7. 7456 ✓✓

8. 2902 ✓✓

9. 547,492 ✓✓

10. 92,404 ✓✓

11. 6,065,400 ✓✓

12. 7409 ✓✓

13. 10,350 ✓✓

14. 293,161 ✓✓

15. 164,050 ✓✓

16. 6,000,007 ✓✓

17. Seven thousand and one ✓✓

18. five thousand and ninety. ✓✓

19. eight thousand and three hundred. ✓✓

20. two hundred and seven thousand and one. ✓✓

21. five hundred and ninety-four thousand and ninety. ✓✓

22. five million, eight hundred and seventy thousand, and three hundred. ✓✓

23. ten million, three hundred and fourty-five thousand, three hundred and two. ✓✓

24. 4 hundreds ✓✓

25. 41 hundreds? 4 thousands

26. 20,345 - smallest two million, three hundred and
54,320 - biggest ✓✓ fifty-four thousand

27. 2,367,800 - smallest
8,763,200 - biggest ✓✓

28. 3642 = 3000 + 600 + 40 + 2 ✓✓

29. 5967 = 5000 + 900 + 60 + 7 ✓✓

30. 4529 = 4000 + 500 + 20 + 9 ✓✓

31. 1398 = 1000 + 300 + 90 + 8 ✓✓

✓✓ Gwaith da
A good understanding of place value.

Can you write q26 and q27 in words?

26
twenty thousand, three hundred and sorty five - smallest

fifty-four thousand, three hundred and twenty.

9-9-14

LO: Multiply numbers and decimals by 10, 100 and 1000.

1. $34 \times 10 = 340$ ✓✓
2. $51 \times 100 = 5100$ ✓✓
3. $530 \times 10 = 5300$ ✓✓
4. $3120 \times 10 = 31,200$ ✓✓
5. $4501 \times 100 = 450,100$ ✓✓
6. $43,980 \times 10 = 439,800$ ✓✓
7. $3.2 \times 10 = 32$ ✓✓
8. $5.4 \times 100 = 5400$ ✓✓
9. $4.2 \times 1000 = 4200$ ✓✓
10. $3.87 \times 10 = 38.7$ ✓✓
11. $4.81 \times 100 = 481$ ✓✓
12. $0.8 \times 10 = 8$ ✓✓
13. $0.5 \times 100 = 50$ ✓✓
14. $0.04 \times 10 = 0.4$ ✓✓
15. $0.08 \times 100 = 8$ ✓✓
16. $0.82 \times 100 = 82$ ✓✓
17. $0.34 \times 10 = 3.4$ ✓✓
18. $7.3 \times 10 = 73$ ✓✓
19. $3.1 \times 100 = 310$ ✓✓

20. 10 x 45 = 450 ₩

21. 10 x 420 = 4200 ₩

22. 1000 x 56 = 56,000 ₩

23. 9 x 400 = 6300 ₩

24. 8 x 60 = 480 ₩

Ardderchog ! Great multiplication.

25. 70 x 5 = 350 ₩

26. 300 x 4 = 1200 ₩

27. 200 x 7 = 1400 ₩

28. 20 x 30 = 600 ₩

29. 30 x 400 = 12,000 ₩

30. 40 x 700 = 28,000 ₩

31. 50 x 900 = 45,000 ₩

32. 0.4 x 40 = 16 ₩

33. 0.6 x 90 = 54 ₩

34. 0.4 x 20 = 8 ₩

35. 0.3 x 300 = 90 ₩

36. 0.2 x 400 = 80 ₩

37. 0.6 x 300 = 180 ₩

10-10-2014

LO - Divide numbers and decimals by 10, 100 and 1000

1. 3÷10=0.3 ✓✓
2. 7÷100=0.07 ✓✓
3. 6÷1000=0.006 ✓✓
4. 39÷10=3.9 ✓✓
5. 41÷100=0.41 ✓✓
6. 52÷1000=0.052 ✓✓
7. 459÷10=45.9 ✓✓
8. 310÷100=3.10 ✓✓
9. 501÷100=5.01 ✓✓
10. 5500÷10=550 ✓✓
11. 3942÷10=394.2 ✓✓
12. 3600÷100=36 ✓✓
13. 8001÷100=80.01 ✓✓
14. 8200÷1000=8.200 ✓✓
15. 9003÷1000=9.003 ✓✓
16. 7260÷100=72 ✓✓
17. 3900÷10=390 ✓✓
18. 72,000÷1000=72 ✓✓

Bendigedig
Nod gyfleuon ✓

15-9-2014

Lo- to use the expanded and compact method of addition

1.) 46780 + 3883 ✓

3
160
1500
9000
40000
50663

2.) 50053 + 59096 ✓

9
140
000
9000
100000
109149

3.) 83471 ✓ + 2973

4
140
1300
50000
80000
86444

4.) 95046 ✓ + 44958

14
90
900
9000
130000
140004

5.) 50391 ✓ + 9768

59
150
1000
9000
50000
60159

6.) 77204 ✓ + 3884

81088

7.) 91365 ✓ + 79758

181123

8.) 86172 + 75096

161268 ✓

9.) 10000 ✓ + 9008

19008

10.) 60040 ✓ + 50090

111130

// Great addition using the expanded and compact methods

Da Cam

• Self-assessed using calculator

16.9.14

LO - To subtract using the compact method

1. $\begin{array}{r} {}^{4}\cancel{5}\,{}^{9}\cancel{0}\,{}^{15}\cancel{8}\,{}^{1}7 \\ -\ 1\,0\,6\,8 \\ \hline 3\,9\,9\,9 \end{array}$

$\begin{array}{r} 1\,0\,6\,8 \\ +\ 3\,9\,9\,9 \\ \hline 5\,0\,6\,7 \\ \hline {\scriptstyle 1\ 1\ 1} \end{array}$ ✓✓

2. $\begin{array}{r} {}^{3}\cancel{4}\,{}^{8}\cancel{3}\,{}^{1}4 \\ -\ \ 6\,7\,7 \\ \hline 3\,7\,1\,7 \end{array}$

$\begin{array}{r} 3\,7\,1\,7 \\ +\ \ 6\,7\,7 \\ \hline 4\,3\,9\,4 \\ \hline {\scriptstyle 1\ \ 1} \end{array}$ ✓✓

3. $\begin{array}{r} {}^{7}\cancel{8}\,{}^{1}15 \\ \cancel{8}\,2\,\cancel{8}\,{}^{1}5 \\ -\ 3\,9\,8\,6 \\ \hline 4\,2\,7\,9 \end{array}$

$\begin{array}{r} 4\,2\,7\,9 \\ +\ 3\,9\,8\,6 \\ \hline 8\,2\,6\,5 \\ \hline {\scriptstyle 1\ 1\ 1} \end{array}$ ✓✓

4. $\begin{array}{r} {}^{5}7\,{}^{1}6\,3\,9 \\ -\ \ 5\,4\,5 \\ \hline 7\,0\,9\,4 \end{array}$

$\begin{array}{r} 7\,0\,9\,4 \\ +\ \ 5\,4\,5 \\ \hline 7\,6\,3\,9 \\ \hline {\scriptstyle 1} \end{array}$ ✓✓

5. $\begin{array}{r} 8\,{}^{14}\cancel{9}\,{}^{1}\cancel{5}\,5\,8 \\ -\ 2\,9\,9\,6 \\ \hline 6\,5\,6\,2 \end{array}$

$\begin{array}{r} 6\,5\,6\,2 \\ +\ 2\,9\,9\,6 \\ \hline 9\,5\,5\,8 \\ \hline {\scriptstyle 1\ 1} \end{array}$ ✓✓

✓✓ Gwaith da
NOD Gyflawni.

17.9.14

LO- To multiply HTU x U and TU x TU using the grid method.

1.) 34 x 9 = 306

X	30	4
9	270	36

270 + 36 = 306 ✓✓

2.) 45 x 8 = 360

X	40	5
8	320	40

320 + 40 = 360 ✓✓

3.) 36 x 10 = 360

X	30	6
10	300	60

300 + 60 = 360 ✓✓

4.) 47 x 11 = 517

X	40	7
10	400	70
1	40	7

400 + 70 + 40 + 7 = 517 ✓✓

5.) 26 x 12 = 330

X	20	6
10	200	60
2	40	30

= 200 + 60 + 40 + 30 = 330 ?

6.) 54 x 12 = 648

x	50	4
10	500	40
2	100	8

500
+100
40
8
648

7.) 177 x 9 = 1593

x	100	70	7
9	900	630	63

900
+630
63
1593 ✓✓

8.) 187 x 8 = 1496

x	100	80	7
8	800	640	56

800
+640
56
1496 ✓✓

9.) 288 x 9 = 2592

x	200	80	8
9	1800	720	72

1800
720
72
2592 ✓✓

10.) 388 x 7 = 2716

x	300	80	8
7	2100	560	56

2100
+560
56
2716 ✓✓

Berdigedig
Super multiplication using the grid method.

22-9-14

LO- To multiply HTU x TU using the grid method.

1. 406
x 35

X	400	0	6
30	12000	0	180
5	2000	0	30

12000 ✓
+ 2000
180
30
0
0
14210
1

2. 308
x 25

X	300	0	8
20	6000	0	160
5	1500	0	40

6000 ✓
+ 1500
160
40
0
0
7700
1

3. 607
x 25

X	600	0	7
20	12000	0	140
5	3000	0	35

12000 ✓
+ 3000
140
35
0
0
15175

4. 568
× 34

×	500	60	8
30	15000	1800	240
4	2000	240	32

15000 ✓
2000
1800
240
240
32
19312
1 1

5. 736
× 43

×	700	30	6
40	28000	1200	240
3	2100	90	18

28000 ✓
2100
1200
240
90
18
31648
1 1

6. 584
× 36

×	500	80	4
30	15000	2400	120
6	3000	480	24

15000 ✓
3000
2400
480
120
24
21024
1 1 1

7. 478
× 46

X	400	70	8
40	16000	2800	320
5	2000	350	40

16000 ✓
+ 2800
2000
350
320
40
21510
1 1

Sefs assessed with a calculator

✓✓ Ardderchog NOD Gyflawni!

23.9.14

Lo-To multiply using the compact method.

1.) 867 ✓
× 7
6069
44

2.) 749 ✓
× 11
749
7490
8239
1 1

3.) 788 ✓
× 9
7092
77

4.) 939 ✓
× 12
1878
1
9390
11,268
1 1

5.) 849 ✓
× 11
849
8490
9339
1 1

6.) 699 ✓
× 12
1398
1 1
6990
8388
1 1

1.) 132 ✓
× 21
132
2640
2772

2.) 242 ✓
× 21
242
4840
5082
1

3.) 314 ✓
× 21
314
6280
6594

4.) 424 ✓
× 21
424
8480
8904
1

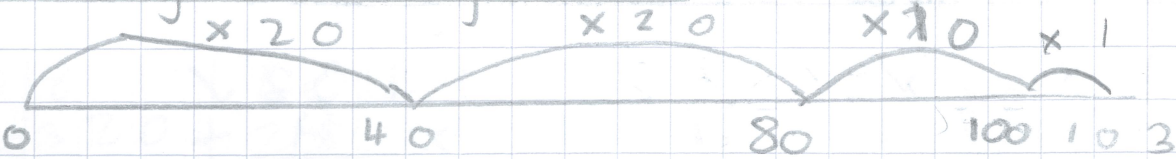
5.) 522 ✓
× 31
522
15660
16182
1

✓ Super multiplication using the compact method well done

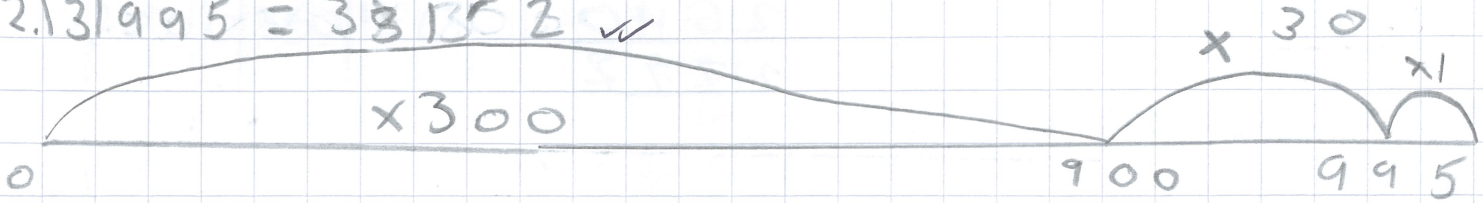
24-9-14

LO- To divide using the chunking method.

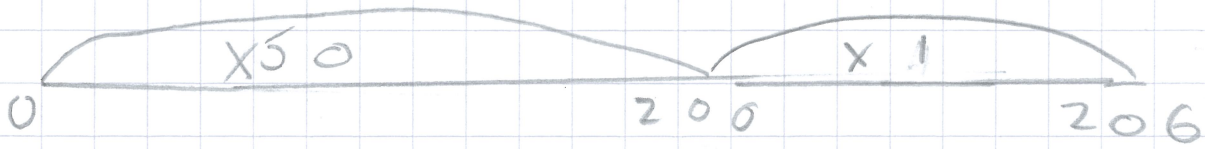
1.) 2|103 = 51 r 1 ✓✓



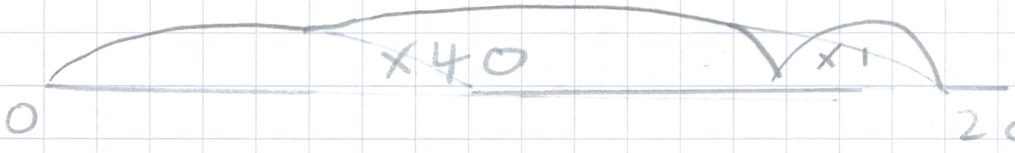
2.) 3|995 = 331 r 2 ✓✓



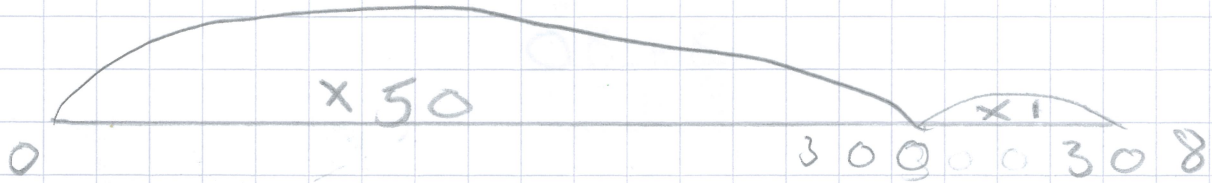
3.) 4|206 = 51 r 2 ✓✓



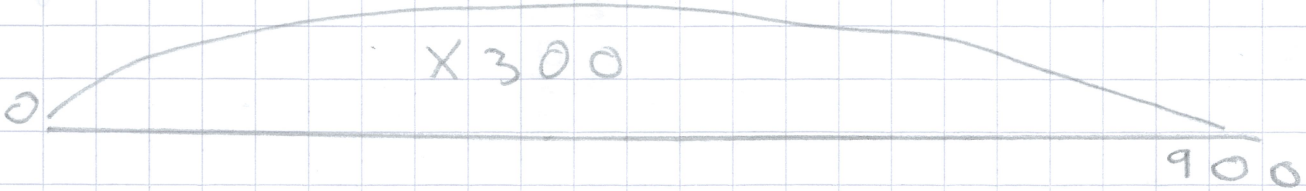
4.) 5|207 = 41 r 2 ✓✓



5.) 6|308 = 51 r 2 ✓✓



6.) 3|900 = 300 ✓✓

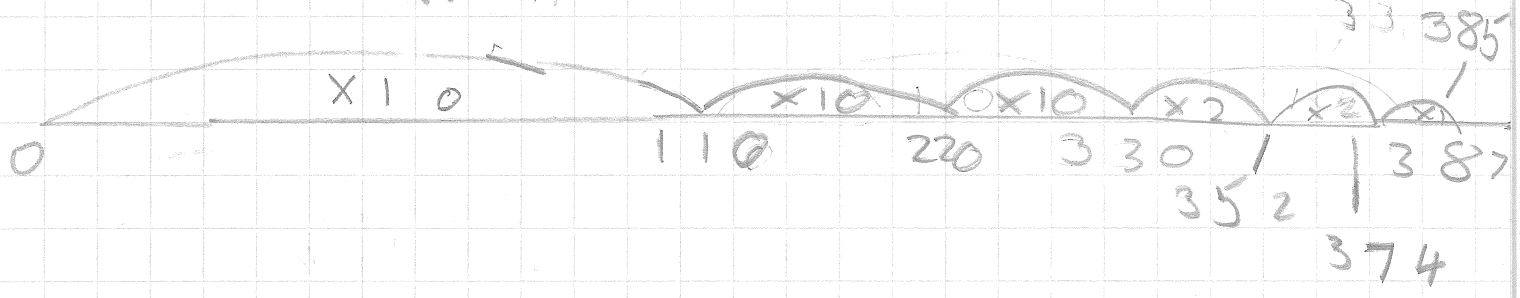


✓✓ Super division using the chunking method. Well done.

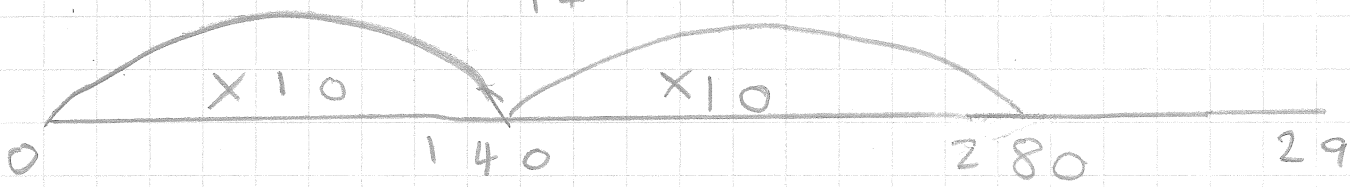
25-9-14

LO - To divide using the chunking method

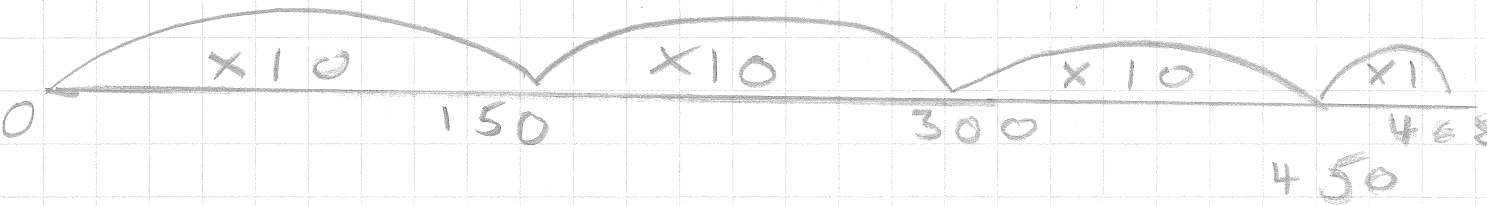
1.) 11 | 387 = 35 7/11 ✓✓



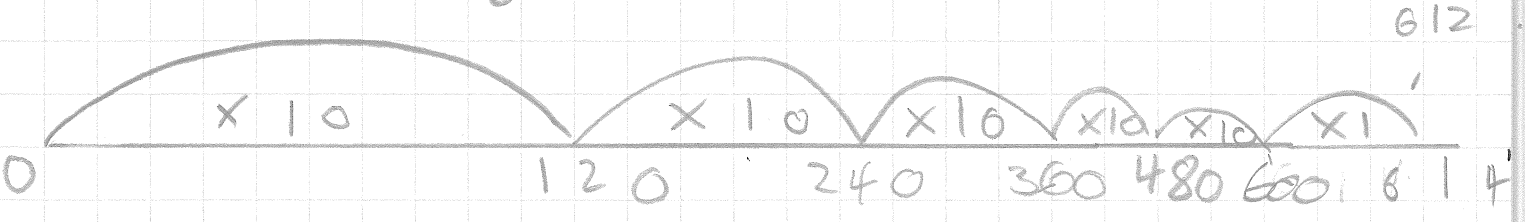
2.) 14 | 291 = 20 11/14 ✓✓



3.) 45 | 468 10 1/5 ✓✓

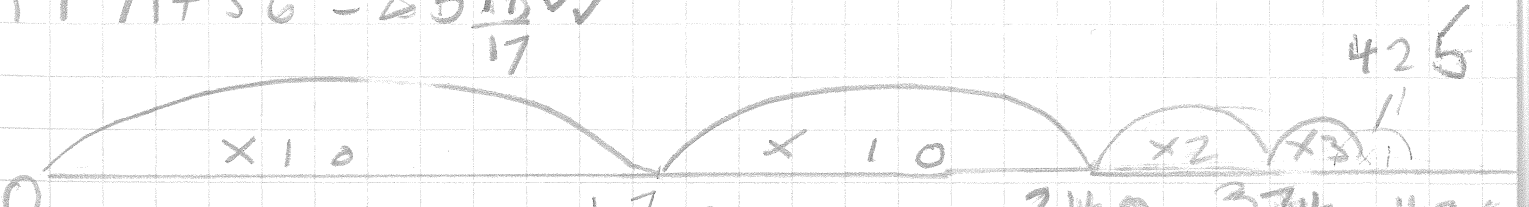


4.) 12 | 614 51 1/6 ✓✓

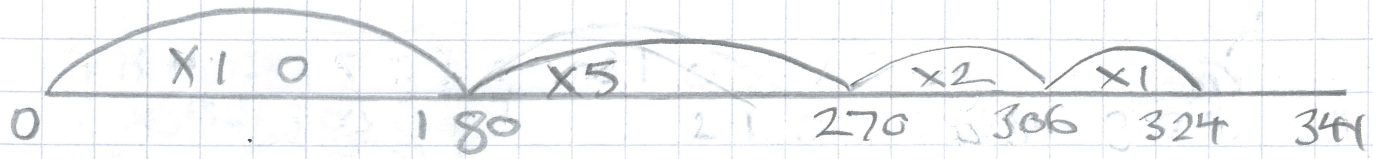


5.) 13 | 391 = 30 1/13 ✓✓

6.) 17 | 436 = 25 11/17 ✓✓



7. $18\overline{)341} = 18\frac{17}{18}$ ✓✓



Self assessed

?

you can do it!

✓✓ Great division by 2 digits using the chunking method.

29-9-14

40-10 divide using the chunking method.

1. 12|456 = 38
- 240 (20x)
216
- 120 (10x) ✓✓
96
- 96 (8x)
0

2. 11|858 = 58
- 550 (50x)
308
- 88 (8x)
220
- 88 (8x)
0

3. 13|689 = 53
- 260 (20x)
429
- 260 (20x)
169
- 130 (10x)
39
- 26 (2x) ✓✓
13
- 13 (1x)

4. 10|824 = 12
- 800 (80x) ?
24
- 20 (2x)
4

✓✓ Daiaan.

5. 13|507 = 48 3/13
- 260 (20x)
247
- 260 (20x) ?
107
- 52 (4x)
55
- 52 (4x)
3

6. 12|876 = 73
- 720 (60x)
156
- 120 (10x) ✓✓
36
- 36 (3x)
0

7. 13|871 = 67 ✓✓
- 390 (30x)
481
- 260 (20x)
221
- 130 (10x)
91
- 65 (5x)
26
- 26 (2x)
0

8. 36|468 = 14 4/36
- 360 (10x)
108
- 72 (2x) ?
36
- 72 (2x)
4

Can you look at Q4 and Q5 again please.

Take care with your calculations

9.1 +

30-9-14

LO-T. use the compact method to subtract and add decimals

1.) £5.83 + £9.49 = £15.32 ✗

£15.32 - £9.49 = £5.83 ✓✓

2.) £17.55 + £14.02 = £31.57

£31.57 - £14.02 = £17.55 ✓✓

3.) £10.78 + £22.22 = £33.00

£33.00 - £22.22 = £10.78 ✓✓

4.) £96.65 + £0.61 = £97.26

£97.26 - £0.61 = £97.87 ✗

5.) £64.71 + £50.30 = £115.01

£115.01 - £50.30 = £64.71 ✓✓

6.) £81.26 + £41.37 = £122.63

£122.63 - £41.37 = £81.26 ✓✓

7.) £484.39 + £93.85 = £578.24

£578.24 - £93.85 = £484.39 ✓✓

8.) £154.06 + £113.72 = £267.78

£267.78 - £113.72 = £154.06 ✓✓

9.) £138.28 + £103.56 = £241.84 ✓

£241.84 − £103.56 = £138.28

10.) £292.04 + £210.99 = £503.03

£503.03 − £210.99 = £292.04 ✓

Good try ! wrong but well done.

9/10 well done!.

✓✓ Ardderchog
Excellent subtraction and addition of decimals.

* Take a look at Q4 again.

1-10-14

LO - To subtract decimals using the compact method.

1. £ 10.78 − £ 5.83 = £ 4.95 ; £ 4.95 + £ 5.83 = 10.78 ✓

2. £ 93.85 − £ 50.30 = 43.55 ; £ 43.55 + £ 50.30 = 93.85 ✓

3. £ 484.139 − £ 374.63 = 109.76 ; £ 109.76 + £ 374.63 = 484.39 ✓

4. £ 41.817 − £ 9.49 = 31.88 ; £ 31.88 + £ 9.49 = 41.37 ✓

5. £ 103.156 − £ 0.61 = 102.95 ; £ 102.95 + £ 0.61 = 103.56 ✓

6. £ 568.147 − £ 103.56 = £ 464.91 ; £ 464.91 + £ 103.56 = £ 568.47 ✓

7. £ 138.129 − £ 17.55 = 120.74 ; £ 120.74 + £ 17.55 = 138.29 ✓

8. £ 292.104 − £ 22.22 = 269.82 ; £ 269.82 + £ 22.22 = 292.04 ✓

9. £ 1000.01   £ 918.75 ✓
- £ 81.26   + £ 81.26
918.75   £1000.01

10. £ 880.36   £ 866.18 ✓
- £ 14.02   + £ 14.02
866.18   £ 880.20

Self assessed using the inverse operation

✓✓ Da iawn
Great subtraction of decimals.

2-10-14

LO-To multiply decimals using the compact method

1. 364.27 × 4 = 1457.01 ✓

2. 7951.32 × 2 = 15902.64 ✓✓

3. 6391.15 × 8 = 51129.20 ✓✓

4. 6436.34 × 7 = 45054.38 ✓✓

5. 8493.25 × 6 = 50959.50 ✓✓

6. 3421.65 × 9 = 30794.85 ✓✓

- Great multiplication of decimals
* Take a look at Q1 again please.

Adding numbers up

6-10-14

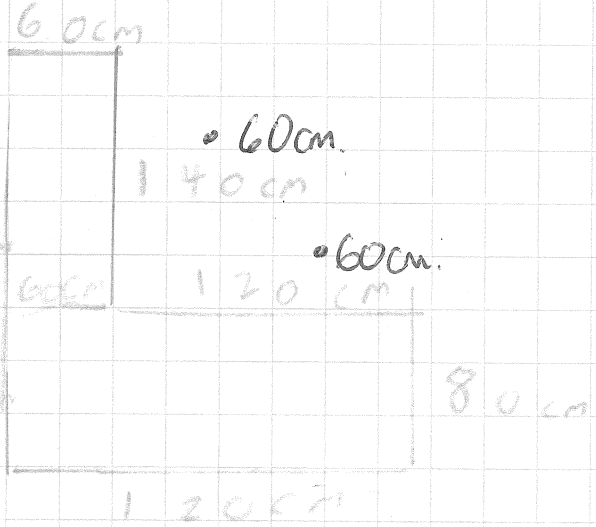
L6-T6 calculate missing dimensions

using a calculator

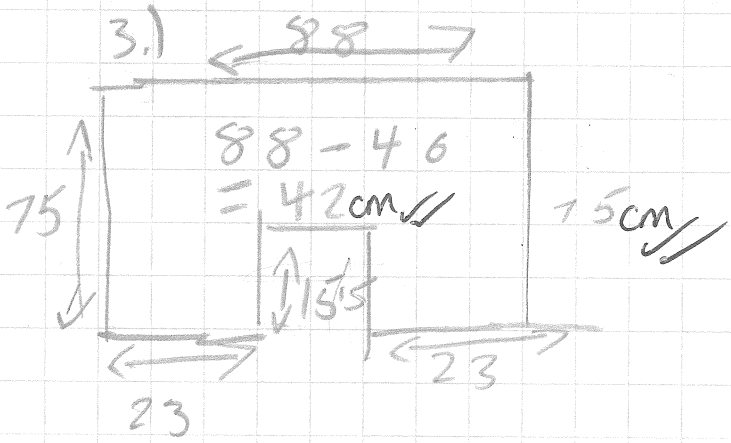
eg

1.)

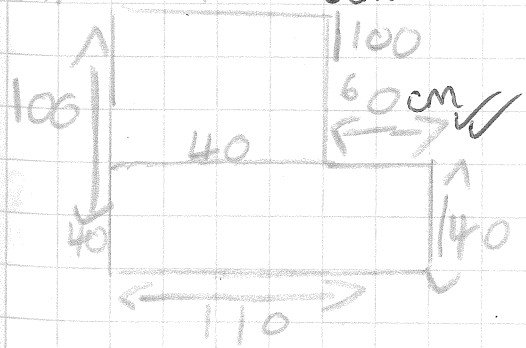
1.)



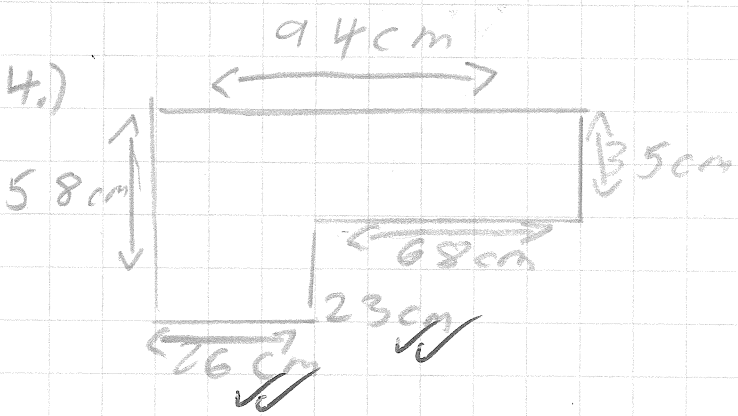
3.)



2.)



4.)



5.

You are working well towards finding the missing dimension.

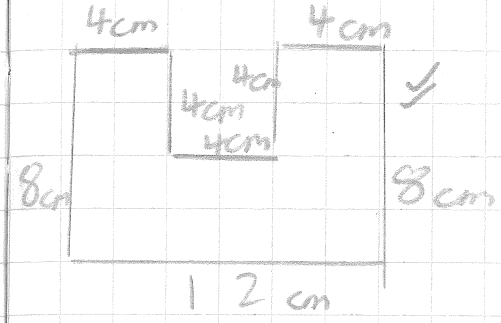
→ We can go back and recap over them again soon

8-10-14

LO- To calculate the perimeter of compound shapes.

Calculate - adding, subtracting, multiplying or dividing numbers.

Perimeter - adding numbers to see how big an area is.

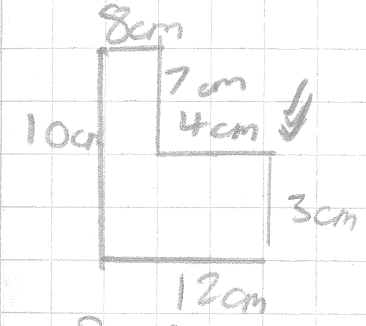


Perimeter = 48 cm ✓

4 + 4 + 4 + 4 + 4 = 20cm

8 + 8 = 16 cm

20
+16
+12
48 cm

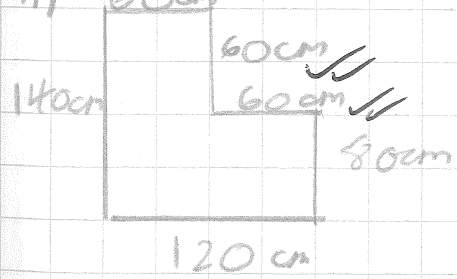


Perimeter = 44cm ✓

8 + 4 + 7 + 3 = 22 cm

22 cm
+12 cm
+10 cm
44

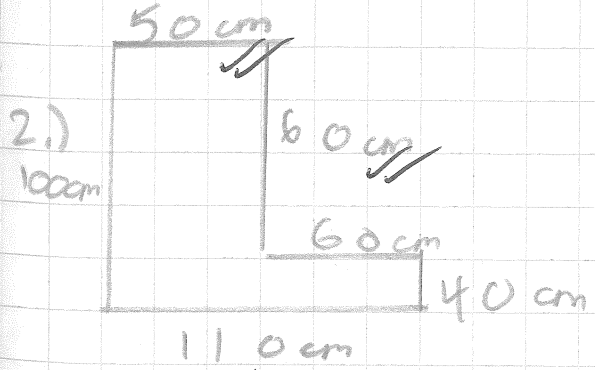
P19

1.) 

520cm

Perimeter = 80 + 60 + 60 + 60 = 260cm

260 cm
+140 cm
+120 cm
520 cm ✓✓

2.) 

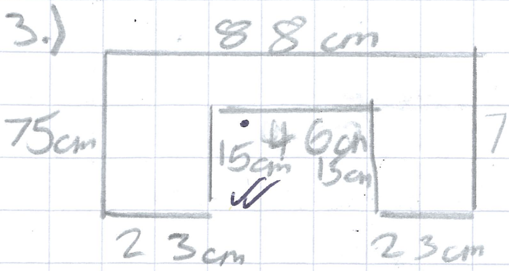
Perimeter = 420 cm

50 + 40 = 90

60 + 60 = 120

120
+110
+100
+ 90
420 cm ✓✓

3.)

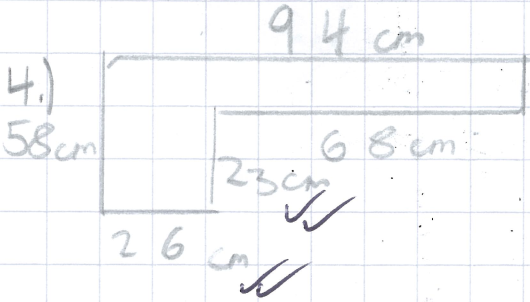


376 cm

Perimeter = 75 + 75 = 150, 15 + 15 = 30, 23 + 23 = 62 + 30 = 108

150
+ 108
+ 88
+ 30
= 376

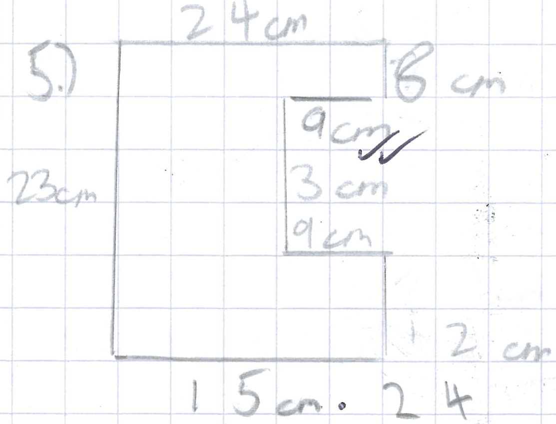
4.)



304 cm

Perimeter = 26 + 23 + 58 = 107, 94 + 68 + 35 = 197, 197 + 107 = 304

5.)

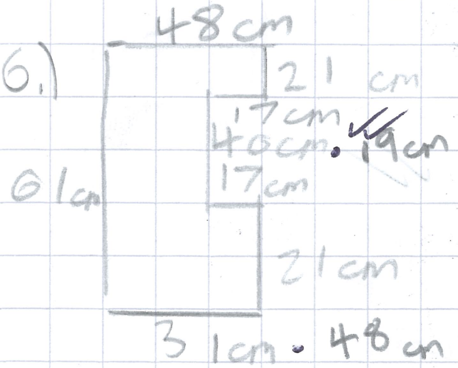


229 cm.

Perimeter = 24 + 23 = 47, 9 + 8 = 17 + 12 = 182, 182 + 47 = 229

182
+ 24
9
3
= 218 cm

6.)



317

252

Perimeter = 21 + 17 + 17 = 55, 61 + 48 + 42 = 55, + 40 + 31 = 277

277
+ 40
= 317

1.) 🟠
2.) 🟠
3.) 🟢

Growth day
→ Have a look back your calculation for number 5.

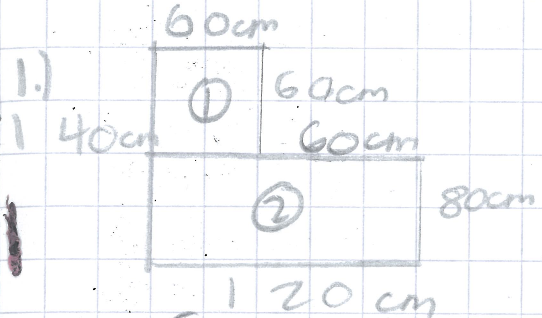
9 - 10 - 14

LO - To calculate the area of compound shapes

Area - calculating the inside of a shape

Compound shape -

1.)

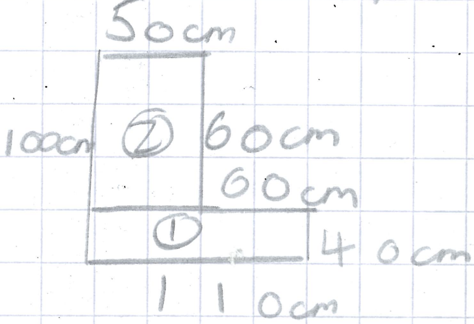


Area: 60 × 60 = 3600 cm² ✓✓

120 × 80 = 9600 cm² ✓✓

9600 cm²
+ 3600 cm²
13200 cm² ✓✓

2.)

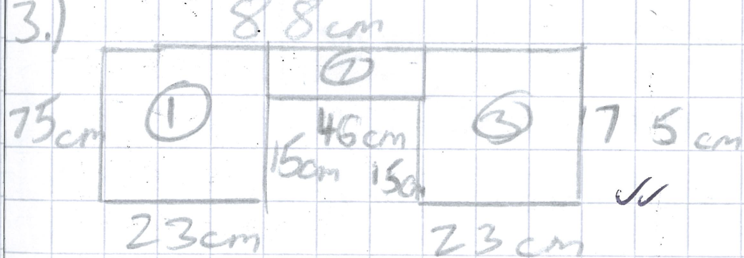


Area = 110 × 40 = 4400 cm²

60 × 50 = 3000 cm²

4400 cm²
+ 3000 cm²
7400 cm² ✓✓

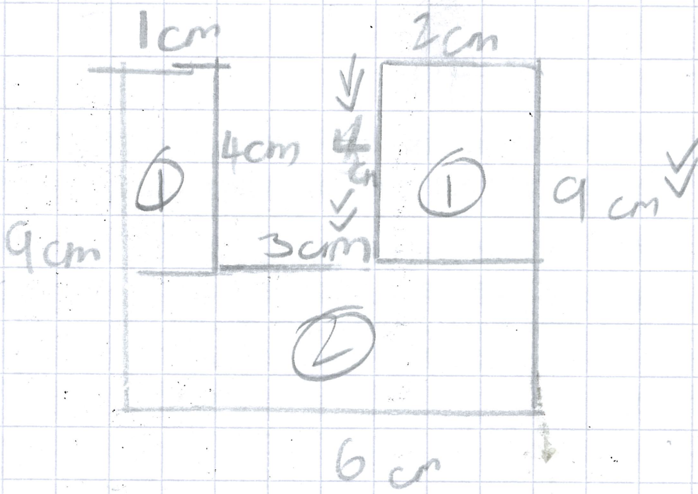
3.)



✓✓

Area = 75 × 23 = 1 5 5 cm²   60 × 42 = 2 4 0   75 × 23 = 1 5 5 cm

• Try these multiplications again.



1.) 🟢
2.) 🟢
3.) 🟠

Area: 4 × 1 = 4 cm²

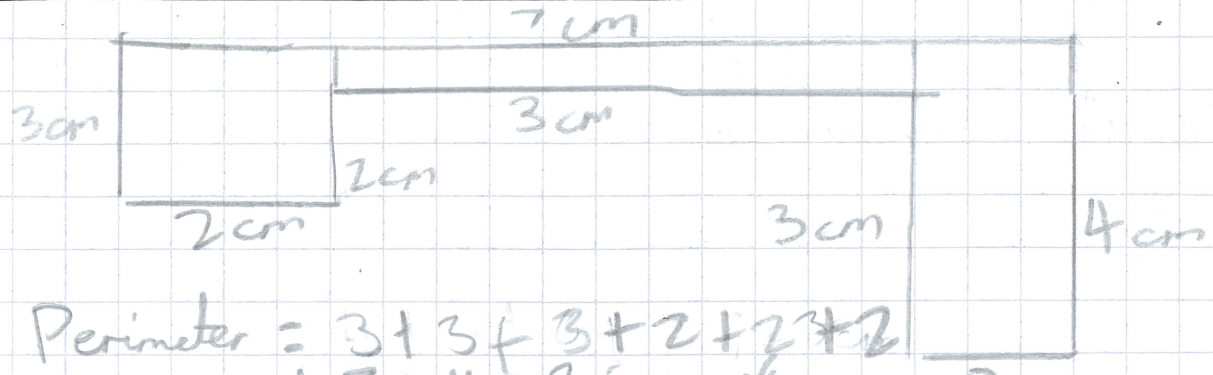
6 × 5 = 30 cm²

2 × 4 = 8 cm cm²

30 + 4 + 8 = 42 cm² ✓

Perimeter =
9 + 9 + 4 + 1 + 3 + 5
+ 2 + 6 = 38 cm ✓✓

A super effort
→ Check your multiplications with a grid method if you do not feel as confident with the compact method.



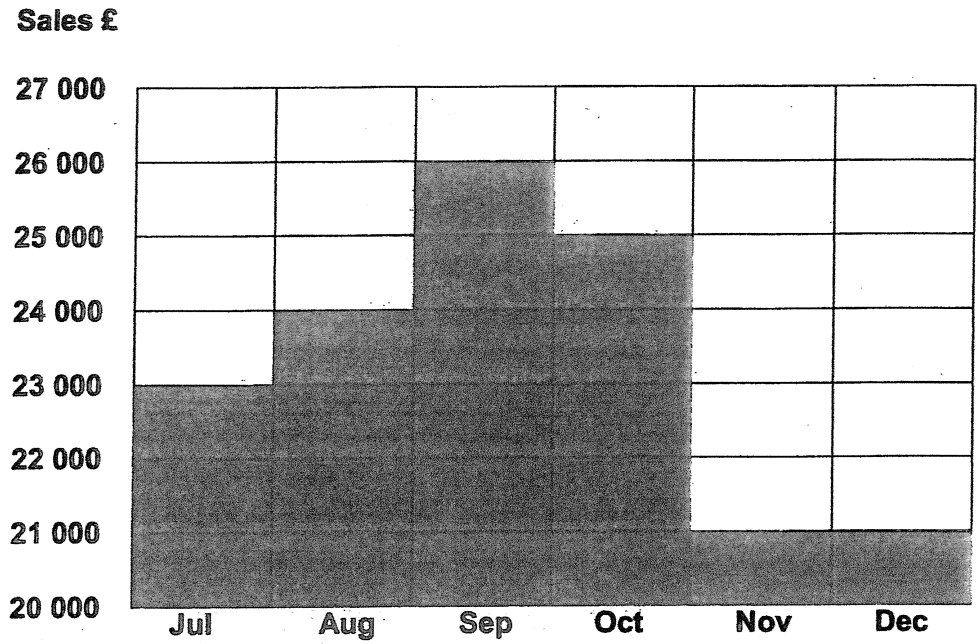
Perimeter = 3+3+3+2+2+2
+7+4=26 cm

Area = 3×2 = 6 cm²
3×1 = 3 cm²
4×2 = 8 cm²
8*3*6 = 17 cm²

Teegan 14/10/14

L.O. To interpret a range of graphs and charts

1. This graph shows the sales of clothes in a shop during the last six months of the year.



Say whether these statements are true or false:

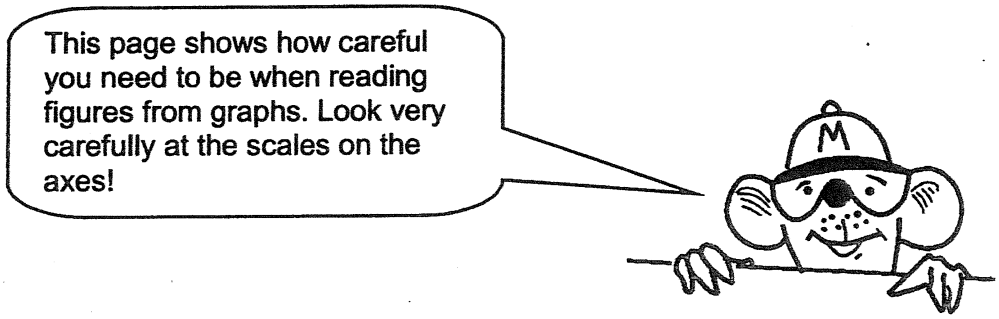
a) The sales in September were twice as much as in July. F //

b) More was sold in October than in November and December together. F //

c) Sales in September were six times as much as in November. F //

False

d) Now draw the graph again, this time starting at £0 on the sales axis. How is your graph different to the one above?



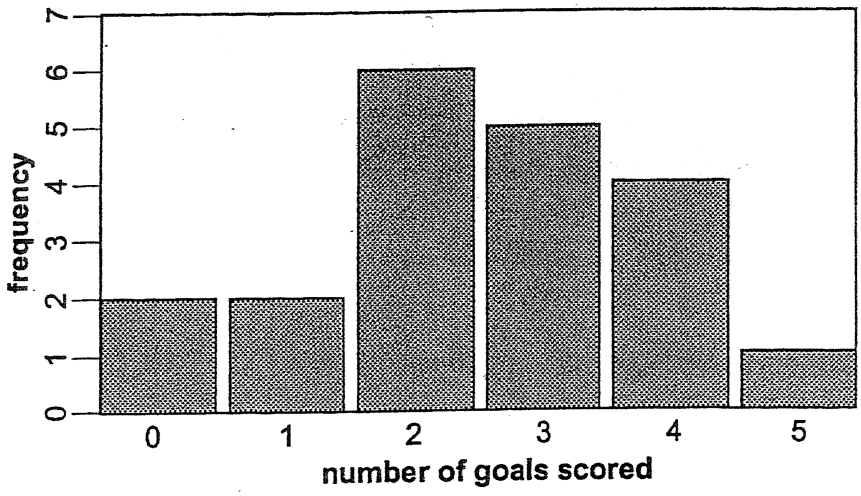
Da iawn

Excellent interpretation of the different types of graphs / charts.

Goals

Goals scored by Harriers

This bar chart shows the number of goals scored by Harriers in last season's matches.



1 What was the highest number of goals Harriers scored in a match? 5 //

2 How many matches in total did Harriers play? 20 //

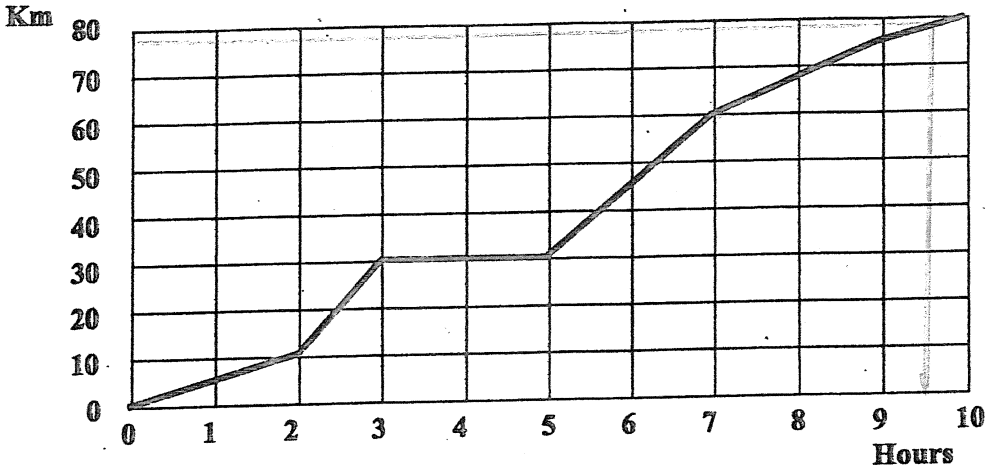
3 In how many matches did Harriers score more than three goals? 5 //

4 What was the most common number of goals scored (mode)? 2 //

5 How likely are Harriers to score seven goals in a match when they play in the same league this season? Very Unlikely //

Extension Work

The graph shows the distance a cyclist rode in a time of 10 hours.



Answer these questions:

a) How far was the cyclist from the starting point after **two hours?** 10Km //

b) How far was she from the starting point after **seven hours?** 60km //

c) What was the cyclist doing between the **third** and the **fifth hours?** Having a re //

d) How far did she cycle in the **ten hours?** 80km //

e) What was her average speed over the journey? 8 km per hour //

f) Between which hours was she cycling fastest? 2 - 3 hours //

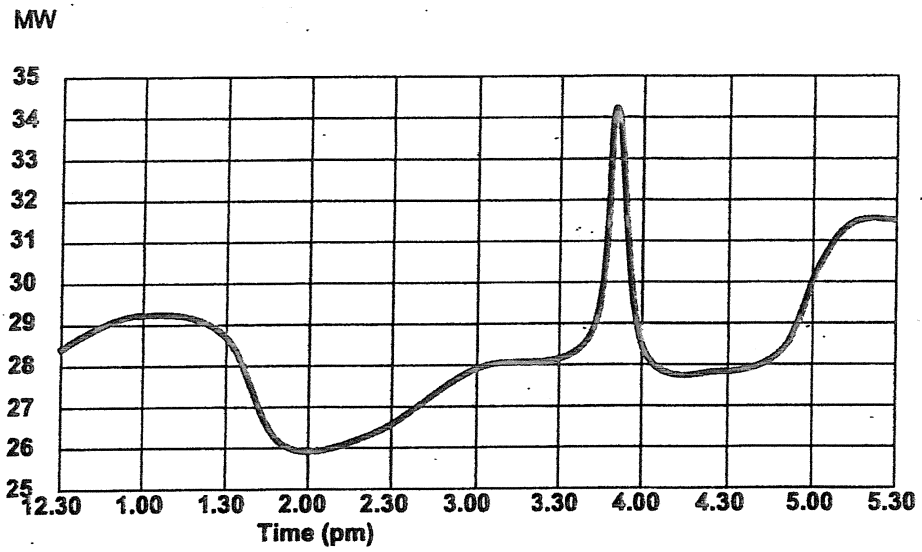
g) What was her average speed when she was cycling fastest? 20 km per hou //

h) Estimate how far she had gone after **9 hours 30 minutes.** 77 km //

i) If she rode back at a steady speed of **16 Km/hr**, how long would it take her to return? 5 hours //

1. This graph shows the amount of electricity being used in a town in England during part of cup final day. The match started at 3.00pm.

   The amount of electricity being used is measured in **megawatts** (MW).



Answer these questions:

a) How much power was being used at 12.30 pm? 28.5MW //

b) How much power was being used at 2.00 pm? 26 MW //

c) How much power was being used at the peak at about 3.45 pm? 34.2 MW //

d) Why was quite a lot of power being used between about 12.30 and 1.30 pm? Lunch

e) Why did the amount of power used drop at about 2.00 pm? Finished their lunch.

f) If no extra time was played after the first half, what happened in the match at 3.45 pm? Halfs time. //

g) Why did the power used suddenly increase dramatically at 3.45 pm? making a sn //

h) Why did the amount of power used rise steadily again from about 4.45 pm? People start to make tea. //

20-10-14

LO - To record results systematically

record -

Systematically - it's a systen

22-10-14

LO- To begin to use algebra to solve equations.

Algebra - numbers that have been put into shapes and letters.

Equations - A sum for example 2+2=4

1.) $5 \times a = 50$ $50 \div 5 = 10$
$a = 10$ ✓✓

2.) $5 \times a = 45$ $45 \div 5 = 9$
$a = 9$ ✓✓

3.) $2 \times a = 14$ $14 \div 2 = 7$
$a = 7$ ✓✓

4.) $3 \times y = 9$ $9 \div 3 = 3$
$y = 3$ ✓✓

5.) $3 \times x = 12$ $12 \div 3 = 4$
$x = 4$ ✓✓

6.) $6 \times a = 12$ $12 \div 6 = 2$
$a = 2$ ✓✓

7.) $5 \times y = 25$ $25 \div 5 = 5$
$y = 5$ ✓✓

8.) $2 \times y = 8$ $8 \div 2 = 4$
$y = 4$ ✓✓

9.) $4 \times a = 8$ $8 \div 4 = 2$
$a = 2$ ✓✓

10.) $4 \times a = 12$ $12 \div 4 = 3$
$a = 3$ ✓✓

11.) $4 \div a = 2$

→ Find a for Number 11.

Gwaith da.
You have shown that you can begin to use algebra to solve equations

3-11-14

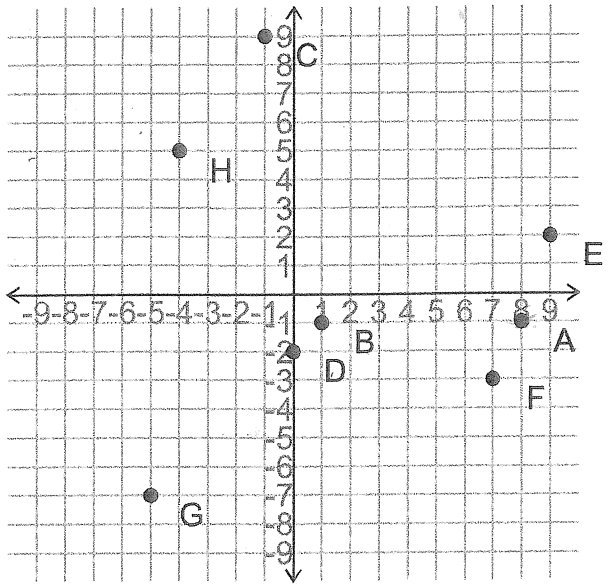
Lo-To read and plot co-ordinates in all four quadrants.

Plot- to plan something ✓✓
co-ordinates- are on a map ✓✓ and they show where something is. ✓✓

✓✓ Excellent reading and plotting of co-ordinates in all four quadrants

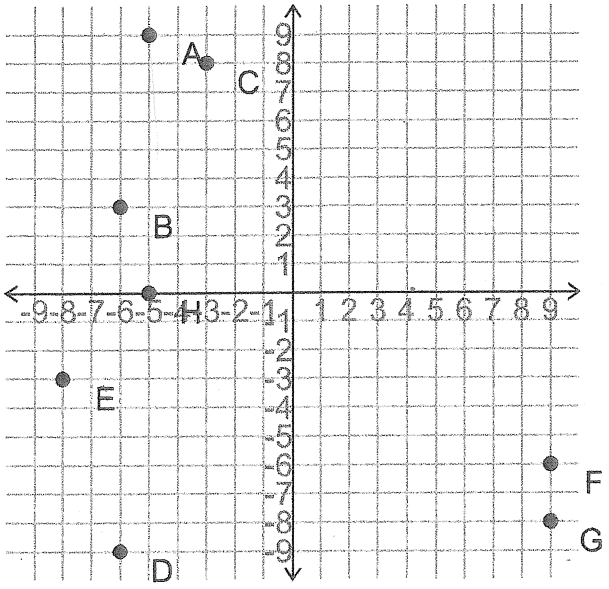
Co-ordinates

1.



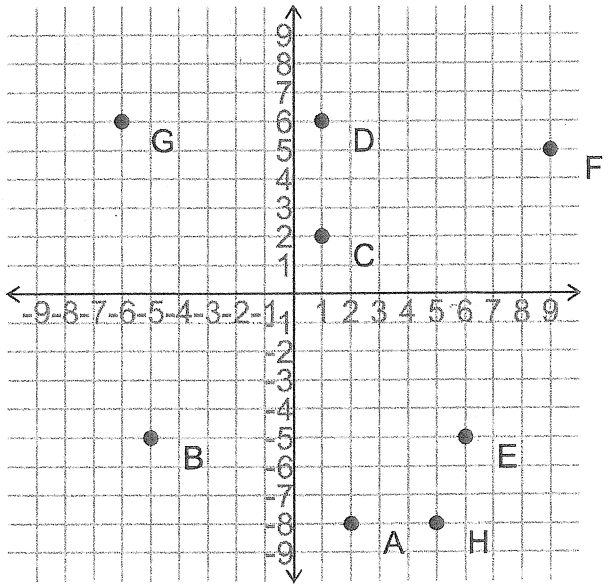
A = (8,-1) ✓✓ B = (1,-1) ✓✓
C = (-1,9) ✓✓ D = (0,-2) ✓✓
E = (9,2) ✓✓ F = (7,-3) ✓✓
G = (-5,-7) ✓✓ H = (-4,5) ✓✓

2.



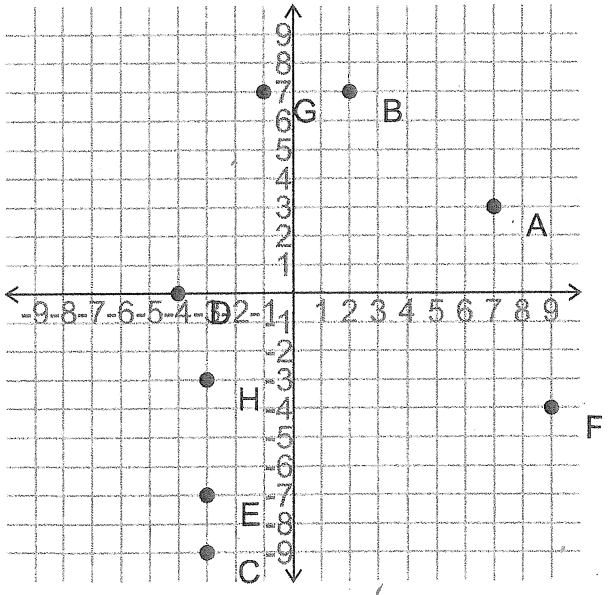
A = (-5,9) ✓✓ B = (-6,3) ✓✓
C = (-3,8) ✓✓ D = (-6,-9) ✓✓
E = (-8,-3) ✓✓ F = (9,-6) ✓✓
G = (9,-8) ✓✓ H = (-5,0) ✓✓

3.

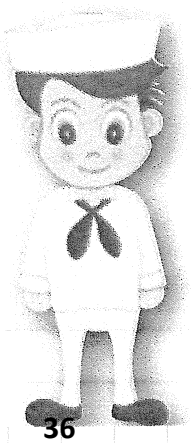


A = (2,-8) ✓✓ B = (-5,-5) ✓✓
C = (1,2) ✓✓ D = (1,6) ✓✓
E = (6,-5) ✓✓ F = (9,5) ✓✓
G = (-6,6) ✓✓ H = (5,-8) ✓✓

4.



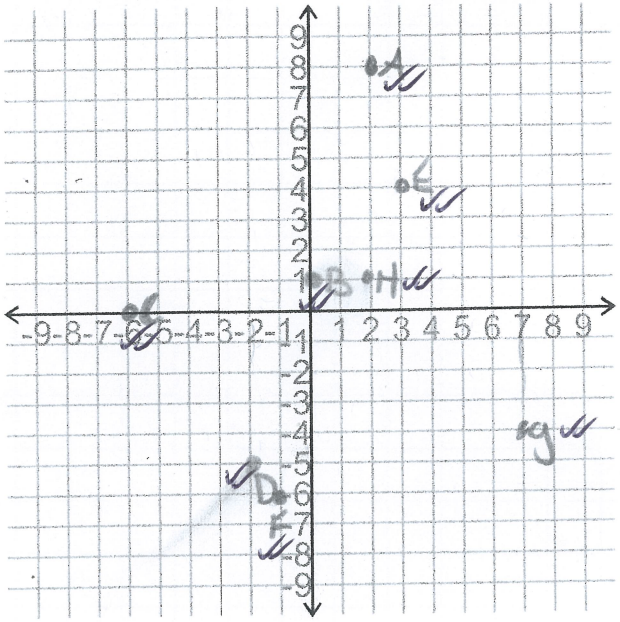
A = (7,3) ✓✓ B = (2,7) ✓✓
C = (-3,-9) ✓✓ D = (-4,0) ✓✓
E = (-3,-7) ✓✓ F = (9,-4) ✓✓
G = (-1,7) ✓✓ H = (-3,-3) ✓✓



E

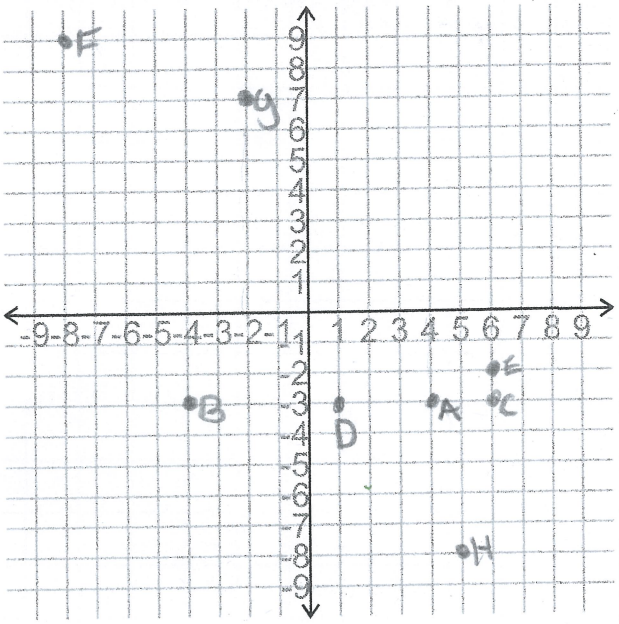
Co-ordinates

1.



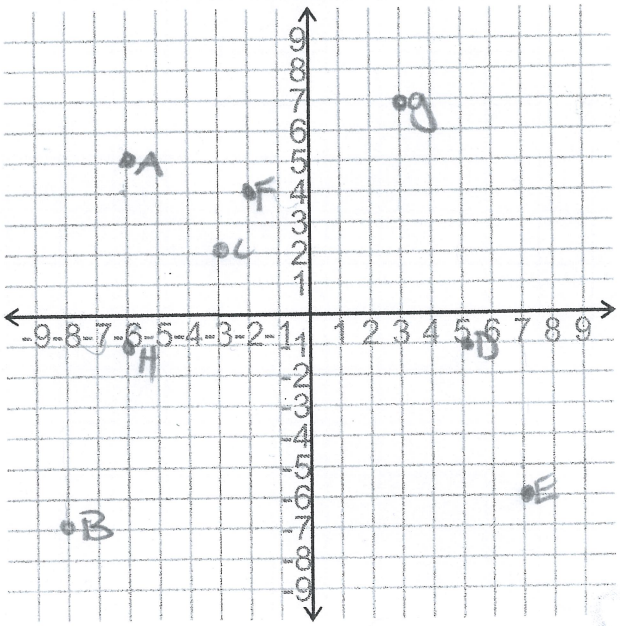
A =(2, 8) ✓✓ B =(0, 1) ✓✓
C =(-6, 0) ✓✓ D =(-2, -5) ✓✓
E =(3, 4) ✓✓ F =(-1, -6) ✓✓
G =(7, -4) ✓✓ H =(2, 1) ✓✓

2.



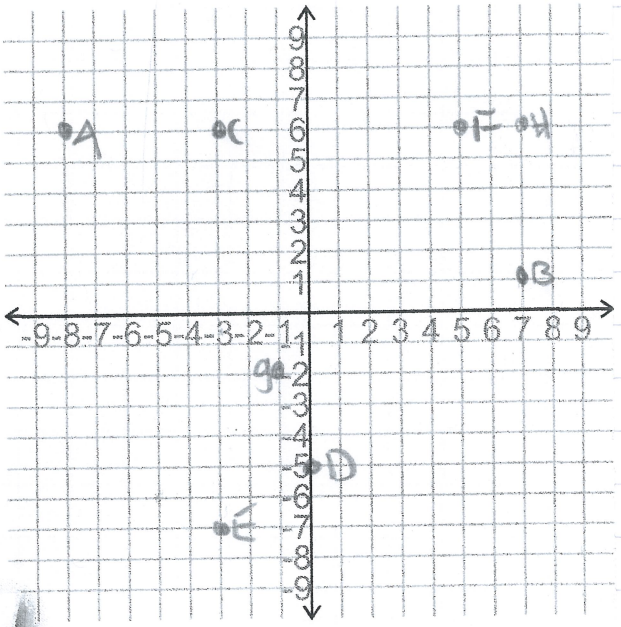
A =(4, -3) ✓✓ B =(-4, -3) ✓✓
C =(6, -3) ✓✓ D =(1, -3) ✓✓
E =(6, -2) ✓✓ F =(-8, 9) ✓✓
G =(-2, 7) ✓✓ H =(5, -8) ✓✓

3.



A =(-6, 5) ✓✓ B =(-8, -7) ✓✓
C =(-3, 2) ✓✓ D =(5, -1) ✓✓
E =(7, -6) ✓✓ F =(-2, 4) ✓✓
G =(3, 7) ✓✓ H =(-6, -1) ✓✓

4.



A =(-8, 6) ✓✓ B =(7, 1) ✓✓
C =(-3, 6) ✓✓ D =(0, -5) ✓✓
E =(-3, -7) ✓✓ F =(5, 6) ✓✓
G =(-1, -2) ✓✓ H =(7, 6) ✓✓

G

4-11-2014

LO- To translate 2D shapes in all four quadrants.

Translate - you can translate languages into your language.

2D shapes - shapes that are flat for example square, triangle.

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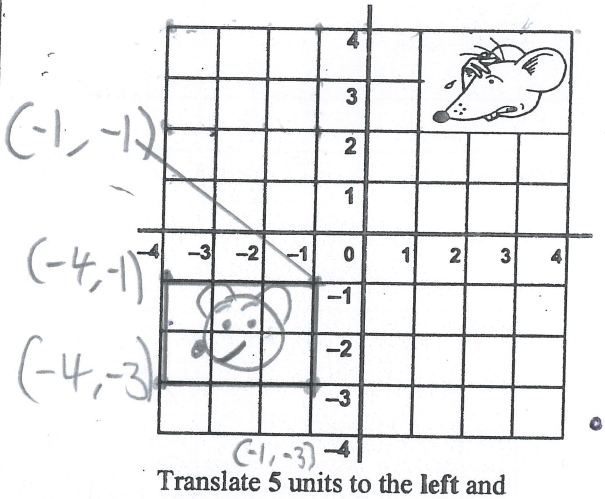
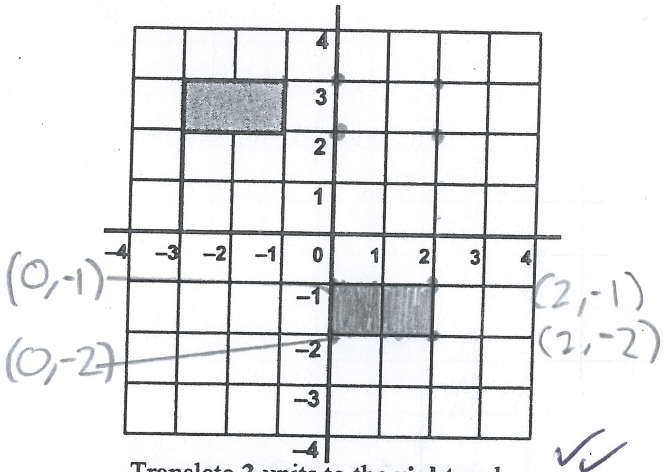
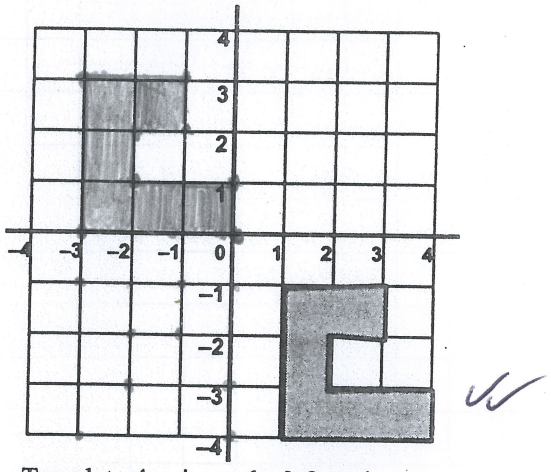
1. Translate the shapes by the amount shown:



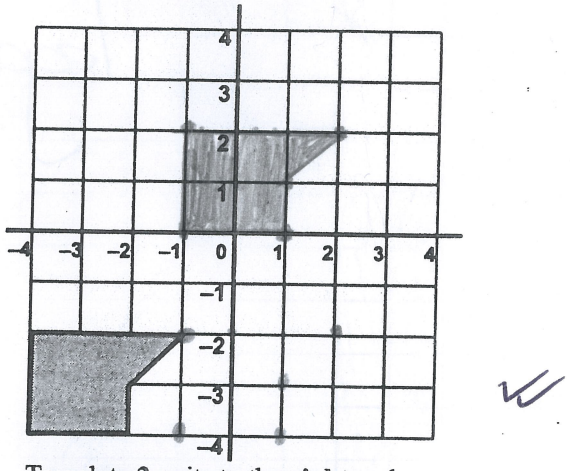
Translate 5 units to the **left** and 4 units **down**



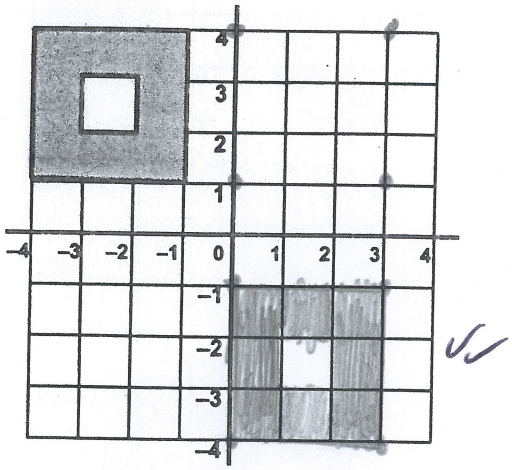
Translate 3 units to the **right** and 4 units **down**



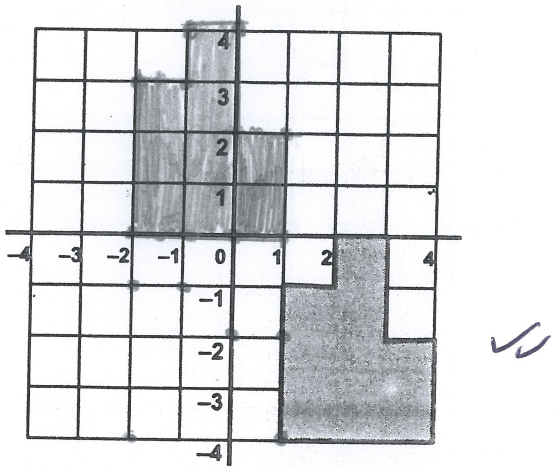
Translate 4 units to the **left** and 4 units **up**



Translate 3 units to the **right** and 4 units **up**



Translate 4 units to the **right** and 5 units **down**



Translate 3 units to the **left** and 4 units **up**

A very good understanding of translating 2D shapes using all four quadrants.

5 - 11 - 14

Lo - To reflect 2D shapes in all four quadrants.

Reflect -  It's like reflection.

Quadrant - There are four quadrants. There are quadrants on co-ordinates. The first quadrant is positive. The third quadrant is negative.

2nd	1st
3rd	4th

✓ Well remembered!

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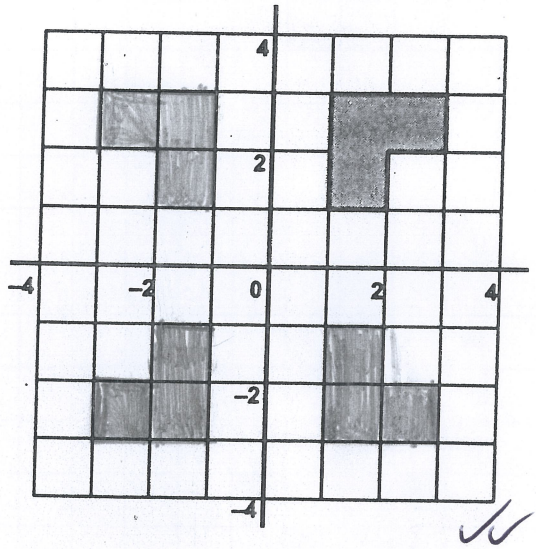
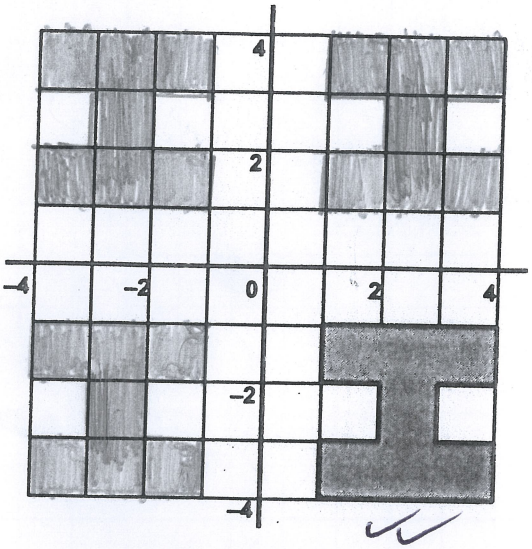
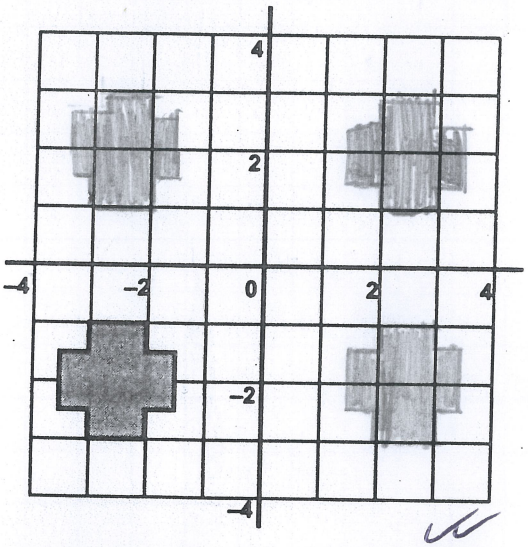
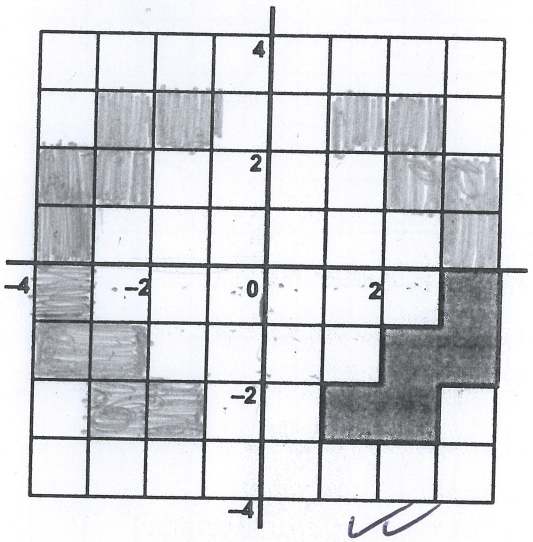
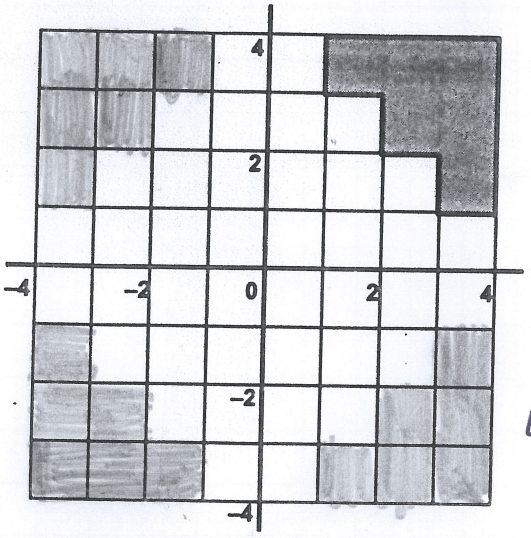
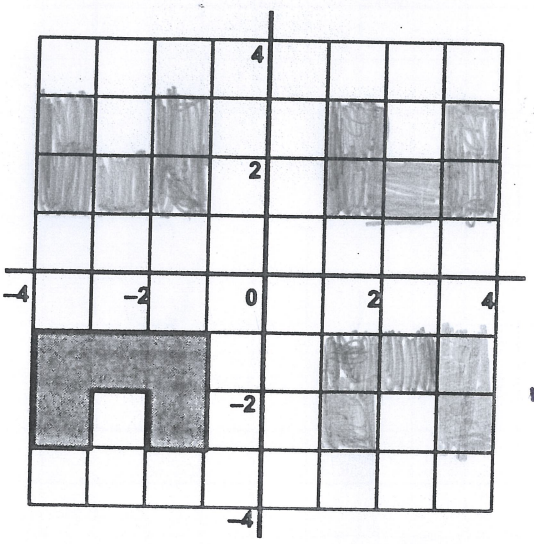
1. Reflect the following shapes in both mirror lines.

Well done. An excellent understanding of reflecting 2D shapes using all four quadrants.

6-11-14

LO- To rotate 2D shapes in all four quadrant.

1st quadrant: All positive

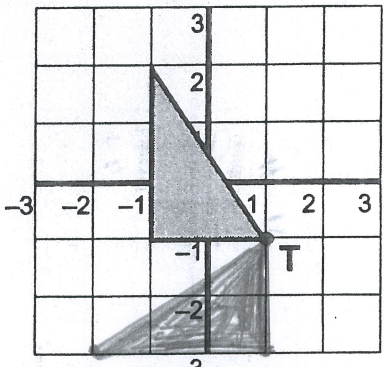
4th quadrant - The x axis is positive
the y axis is negative

rotation -

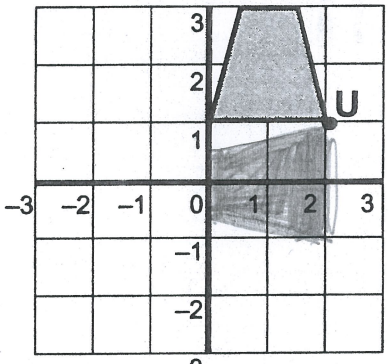
1st

4th

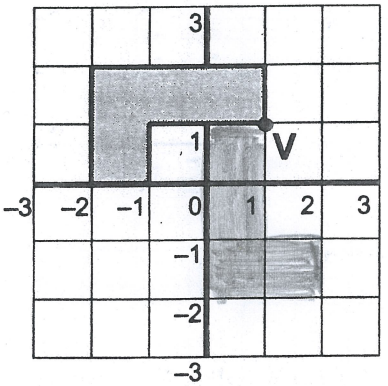
I would like you to rotate each of the shapes below by the amount shown. Be careful with 90^0 rotations to watch whether you should rotate clockwise of anti-clockwise!



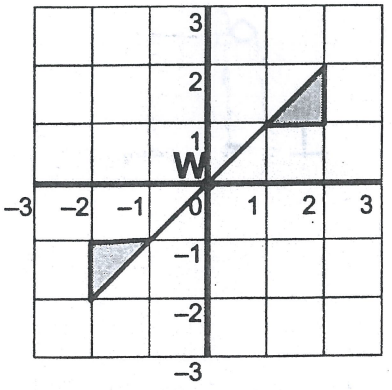
Rotate the triangle about T by **90^0** anti-clockwise



Rotate the trapezium about U by **90^0** anti-clockwise

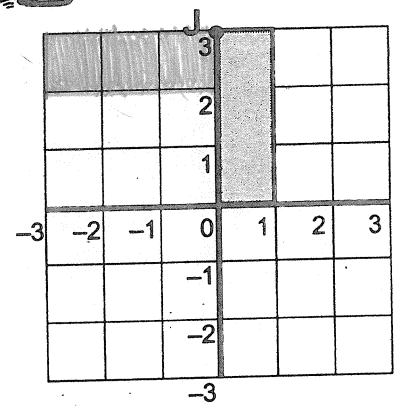


Rotate the hexagon about V by **90^0** anti-clockwise

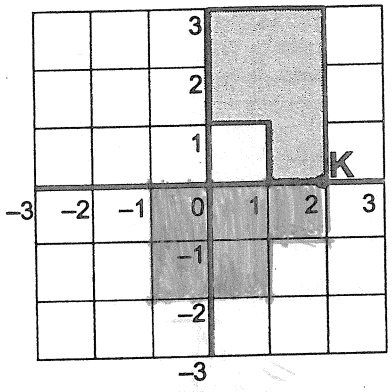


Rotate the double flag about W by **90^0** clockwise

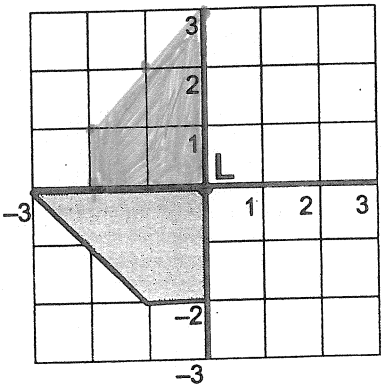
I would like you to rotate each of the shapes below by the amount shown. Be careful with 90^0 rotations to watch whether you should rotate clockwise of anti-clockwise!



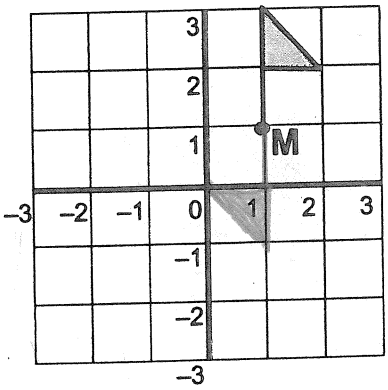
Rotate the rectangle about J by 90^0 clockwise



Rotate the hexagon about K by 90^0 anti-clockwise



Rotate the trapezium about L by 90^0 clockwise



Rotate the flag about M by 180^0

For not feeling confident at the start of the lesson, you have demonstrated your understanding really well. Addercho's!

10-11-14

LO- To recognise different fractions that are equivalent to each other.

fraction - $\frac{1}{2}$

equivalent - the same for example $\frac{3}{9} - \frac{1}{3}$

1.) $\frac{1}{2} - \frac{2}{4}\ \frac{10}{20} = \frac{100}{200} = \frac{3}{6} = \frac{12}{24} =$

2.) $\frac{1}{4} - \frac{2}{8}\ \frac{10}{40} = \frac{8}{32} = \frac{5}{20} = \frac{20}{80} =$

3.) $\frac{3}{5} - \frac{6}{10}\ \frac{12}{20} = \frac{60}{100} = \frac{21}{35} =$

4.) $\frac{1}{6} - \frac{8}{46}\ \frac{9}{54} = \frac{10}{60} = \frac{7}{42} =$

5.) $\frac{5}{8} - \frac{35}{54}\ \frac{20}{32} = \frac{15}{24} =$

Have a look back at these.

$\frac{1}{6} = \frac{8}{46}$ (×8)

$\frac{5}{8} = \frac{35}{56}$ (×7)

6.) $\frac{4}{7} - \frac{12}{21}\ \frac{28}{49}\ \frac{5}{8}\ \frac{40}{70}$

7.) $\frac{11}{12} - \frac{110}{120}\ \frac{22}{24}\ \frac{44}{48}\ \frac{88}{96}$

8.) $\frac{9}{10} - \frac{90}{100}\ \frac{18}{20}\ \frac{81}{90}\ \frac{36}{40}$

9.) $\frac{25}{100} - \frac{250}{1000}$

$\frac{50}{200}\ \frac{75}{400}$

10.) $\frac{8}{11} - \frac{16}{22}\ \frac{36}{44}$

$\frac{72}{88}$

11.) $\frac{3}{9} - \frac{6}{18}\ \frac{1}{3}\ \frac{12}{36}\ \frac{24}{72}$

12.) $\frac{3}{2} - \frac{6}{4}\ \frac{12}{8}\ \frac{24}{16}$

$\frac{48}{32}$

11-11-14

Lo - To simplify fractions.

1.) $\frac{27}{36} = \frac{3}{4}$ ✓✓

2.) $\frac{15}{20} = \frac{3}{4}$ //

3.) $\frac{4}{14} = \frac{2}{7}$ //

4.) $\frac{8}{20} = \frac{4}{10} = \frac{2}{5}$ //

5.) $\frac{6}{9} = \frac{2}{3}$ //

6.) $\frac{12}{42} = \frac{6}{21} = \frac{2}{7}$ //

7.) $\frac{27}{45} = \frac{9}{15} = \frac{3}{5}$ //

8.) $\frac{70}{100} = \frac{45}{50} = \frac{9}{10}$? check again.

9.) $\frac{16}{36} = \frac{8}{18} = \frac{4}{9}$ ✓✓

10.) $\frac{16}{24} = \frac{8}{12} = \frac{4}{6} = \frac{2}{3}$ //

11.) $\frac{12}{24} = \frac{6}{12} = \frac{3}{6} = \frac{1}{2}$ //

12.) $\frac{18}{24} = \frac{9}{12} = \frac{3}{4}$ //

13.) $\frac{12}{24} = \frac{6}{12} = \frac{3}{6} = \frac{1}{2}$ //

14.) $\frac{3}{24} = \frac{1}{8}$ ✓✓

15.) $\frac{9}{24} = \frac{3}{8}$ ✓✓

16.) $\frac{2}{24} = \frac{1}{12}$ //

17.) $\frac{6}{24} = \frac{1}{4}$ ✓✓

Well done

Excellent simplifying of fractions.

13-11-14

LO.- To order fractions using a common denominator.

1.) $\frac{2}{3}$ $\frac{3}{5}$ $\frac{3}{4}$

$\frac{20}{60}$ $\frac{12}{60}$ $\frac{15}{60}$ ✓

$\frac{3}{5} < \frac{3}{4} < \frac{2}{3}$

2.) $\frac{2}{7}$ $\frac{1}{3}$ $\frac{8}{21}$

$\frac{6}{21}$ $\frac{7}{21}$ $\frac{8}{21}$

$\frac{2}{7} < \frac{1}{3} < \frac{8}{21}$ ✓

3.) $\frac{5}{9}$ $\frac{2}{3}$ $\frac{11}{18}$

$\frac{10}{18}$ $\frac{9}{18}$ $\frac{11}{18}$ X

$\frac{2}{3} < \frac{5}{9} < \frac{11}{18}$

4.) $\frac{1}{4}$ $\frac{5}{12}$ $\frac{2}{3}$

$\frac{3}{12}$ $\frac{5}{12}$ $\frac{8}{12}$

$\frac{1}{4} < \frac{5}{12} < \frac{2}{3}$ ✓

5.) $\frac{3}{5}$ $\frac{1}{2}$ $\frac{4}{7}$ X

$\frac{14}{70}$ $\frac{35}{70}$ $\frac{10}{70}$

$\frac{4}{7} < \frac{3}{5} < \frac{1}{2}$

6.) $\frac{3}{4}$ $\frac{4}{5}$ $\frac{7}{10}$

$\frac{50}{200}$ $\frac{40}{200}$ $\frac{20}{200}$

$\frac{7}{10} < \frac{4}{5} < \frac{3}{4}$ X

7.) $\frac{1}{2}$ $\frac{7}{12}$ $\frac{5}{6}$

$\frac{6}{12}$ $\frac{7}{12}$ $\frac{10}{12}$

$\frac{1}{2} < \frac{7}{12} < \frac{5}{6}$ ✓

8.) $\frac{3}{7}$ $\frac{2}{3}$ $\frac{4}{9}$

$\frac{27}{189}$ $\frac{72}{189}$ $\frac{21}{189}$

$\frac{4}{9} < \frac{3}{7} < \frac{2}{3}$ X

9.) $\frac{1}{2}$ $\frac{1}{3}$ $\frac{5}{11}$

$\frac{33}{66}$ $\frac{22}{66}$ $\frac{6}{66}$

$\frac{5}{11} < \frac{1}{3} < \frac{1}{2}$ X

10.) $\frac{9}{10}$ $\frac{3}{4}$ $\frac{11}{12}$

$\frac{48}{480}$ $\frac{120}{480}$ $\frac{40}{480}$

$\frac{11}{12} < \frac{9}{10} < \frac{3}{4}$ X

11.) $\frac{2}{3}$ $\frac{4}{5}$ $\frac{5}{8}$

$\frac{40}{120}$ $\frac{24}{120}$ $\frac{15}{120}$

$\frac{5}{8} < \frac{4}{5} < \frac{2}{3}$ ✗

Self assessed.

Correction

$\frac{2}{3}$ $\frac{4}{5}$ $\frac{3}{8}$

$\frac{80}{120}$ $\frac{96}{120}$ $\frac{75}{120}$

$\frac{5}{8} < \frac{2}{3} < \frac{4}{5}$

Well done

You've had a good go at using a common denominator to order the fractions.

⇒ Corrections please.

17-11-14

Lo-To find fractions of quantities

1.) $\frac{1}{10}$ of £125 = £12.50

$\frac{4}{10}$ of £125 = £50 //

2.) $\frac{1}{10}$ of £58 = £5.80

$\frac{4}{10}$ of £58 = £23.20 //

3.) $\frac{1}{10}$ of £12.50 = £1.25

$\frac{4}{10}$ of £12.50 = £5.00 //

£1.25 × 4 = £5.00

4.) $\frac{1}{10}$ of £150 = £15.00

$\frac{4}{10}$ of £150 = £60.00 //

5.) $\frac{1}{10}$ of £425 = £42.50

$\frac{4}{10}$ of £425 = £170.00 //

£42.50 × 4 = £170.00

6.) $\frac{1}{10}$ of £260 = £26.00

$\frac{4}{10}$ of £260 = £104.00 //

£26.00 × 4 = £104.00

7.) $\frac{1}{10}$ of £320 = £32.00

$\frac{4}{10}$ of £320 = £128.00 //

8.) $\frac{1}{10}$ of £740 = £74.00

$\frac{4}{10}$ of £740 = £296.00 //

9.) $\frac{1}{10}$ of £1000 = £100

$\frac{4}{10}$ of £1000 = £400 //

10.) $\frac{1}{5}$ of 40 = 8

$\frac{4}{5}$ of 40 = 32 //

11.) $\frac{1}{8}$ of 48 = 6

$\frac{7}{8}$ of 48 = 42 //

12.) $\frac{1}{9}$ of 81 = 9

$\frac{2}{9}$ of 81 = 18 //

13.) $\frac{1}{7}$ of 77 = 11

$\frac{2}{7}$ of 77 = 22 //

14.) $\frac{1}{4}$ of 28 = 7

$\frac{3}{4}$ of 28 = 21 //

15.) $\frac{1}{3}$ of 90 = 30

$\frac{2}{3}$ of 90 = 60 //

16.) $\frac{1}{6}$ of 120 = 20

$\frac{5}{6}$ of 120 = 100 //

17.) $\frac{1}{8}$ of 240 = 30

$\frac{3}{8}$ of 240 = 90 //

18.) $\frac{1}{10}$ of 500 = 50

$\frac{7}{10}$ of 500 = 350 //

Gwaith da
Excellent calculation
of the percentages of quantities.

18-11-14

LO - To calculate percentages.

1.) 10% of 140 = 14 //
20% of 140 = 28

2.) 10% of 280 = 28 //
30% of 280 = 84

3.) 10% of 190 = 19 //
40% of 190 = 76

4.) 10% of 250 = 25 //
50% of 250 = 125

5.) 10% of 360 = 36 //

6.) 10% of 180 = 18 //
30% of 180 = 54

7.) 10% of 340 = 34 //
20% of 340 = 68

8.) 10% of 170 = 17 //
40% of 170 = 68

9.) 10% of 220 = 22
60% of 220 = 132 //

10.) 10% of 200 = 20
80% of 200 = 160 ?

11.) 10% of 120 = 1
30% of 120 = 3

12.) 10% of 40 = 4 //
40% of 40 = 16

13.) 10% of 350 = 35 //
20% of 350 = 70

14.) 10% of 36 = 3.6 //
50% of 36 = 18

15.) 10% of 400 = 40 /

16.) 10% of 300 = 30 /
30% of 300 = 90

Ardderchog

Excellent calculation of percentages.

20.11.14

Lo - To calculate sale prices using percentages.

1) 10% of 160 = 16

50% of 160 = 80 children =

2) 10% of 300 = 30

40% of 300 = 120 children =

3) 10% of 180 = 18

20% of 180 = 36 children =

4) 10% of 440 = 44

40% of 440 = 176 children =

$$\begin{array}{r} 44 \\ \times \quad 4 \\ \hline 16 \\ 160 \\ \hline 176 \end{array}$$

5) 10% of 140 = 14 children =

6) 10% of 240 = 24

20% of 240 = 48 children =

7) 10% of 400 = 40

5% of 400 = 20

20% of 400 = 80

25% of 400 = 100 children =

8) 10% of 200 = 20

5% of 200 = 10

70% of 200 = 140

75% of 200 = 150 children =

9.) 10% の $30 = $3　　$30 - $9 = $21 //

30% の $30 = $9

10.) 10% の $60 = $6　　$60 - $12 = $48 //

20% の $60 = $12

11.) 10% の $20 = $2　　$20 - $8 = $12 //

40% の $20 = $8

12.) 10% の $40 = $4　　$40 - $10 = $30 //

5% の $40 = $2

20% の $40 = $8

$8 + $2 = $10

25% の $40 = $10

13.) 10% の $80 = $8　　$80 - $60 = $20 //

5% の $80 = $4

70% の $80 = $56

75% の $80 = $60

14.) 10% の $50 = $5　　$50 - $30 = $20 //

60% の $50 = $30

15.) 10% の $70 = $7　　$70 - $17.05
$52

5% の $70 = $3.05

20% の $70 = $14

25% の $70 = $17.05

16. 10% of £30 = £3

5% of £30 = £1.50

70% of £30 = £21

75% of £30 = £22.50

£30 - £22.50 = £7.50 =

Well done . Super percentages work.

⇒ Correction please.

27% of 3840 km

10% of 3840km = 384 km

20% = 384 x 2 = 768 km

1% of 3840 = 38.4 km

7% = 38.4
7
268.8
52

768.0
+ 268.8
1036.8 km
11

13% of 324

10% of 324 = 32.4

1% of 324 = 3.24

3% = 3.24

$$\begin{array}{r} 3 \\ \hline 9.72 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 32.40 \\ +\ 9.72 \\ \hline 42.12 \\ \hline 1\ 1 \end{array}$$

13% = 32.4 + 9.72 =

24-11-14

LO- To recognise and use mixed numbers and improper fractions.

1.) $2\frac{3}{8} = \frac{19}{8}$ 19 slices //

2.) $2\frac{5}{6} = \frac{17}{6}$ 17 slices //

3.) $1\frac{7}{8} = \frac{15}{8}$ 15 slices //

4.) $3\frac{1}{4} = \frac{13}{4}$ 13 slices //

5.) $2\frac{2}{3} = \frac{8}{3}$ 8 slices //

6.) $1\frac{1}{6} = \frac{7}{6}$ 7 slices //

7.) $2\frac{2}{7} = \frac{16}{7}$ 16 slices //

8.) $1\frac{7}{9} = \frac{16}{9}$ 16 slices //

9.) $2\frac{11}{12} = \frac{35}{12}$ 35 slices //

10.) $1\frac{7}{10} = \frac{17}{10}$ 17 slices //

11.) $3\frac{4}{5} = \frac{19}{5}$ //

12.) $1\frac{2}{5} = \frac{7}{5}$ //

13.) $2\frac{3}{5} = \frac{13}{5}$ //

14.) $3\frac{1}{5} = \frac{16}{5}$ //

15.) $2\frac{4}{5} = \frac{14}{5}$ //

16.) $3\frac{3}{5} = \frac{18}{5}$ //

17.) $6\frac{1}{5} = \frac{31}{5}$ //

18.) $1\frac{4}{5} = \frac{9}{5}$ //

19.) $2\frac{2}{5} = \frac{12}{5}$ //

20.) $4\frac{2}{5} = \frac{22}{5}$ //

Excellent conversion of the Mixed numbers into improper fractions.

25-11-14

LO - To calculate the midpoint between two fractions.

1.) $2\frac{3}{7}$ $2\frac{4}{7}$

midpoint $= 2\frac{3.5}{7} = 2\frac{7}{14} = 2\frac{1}{2}$ ✓✓

2.) $3\frac{3}{5}$ $3\frac{4}{5}$

midpoint $= 3\frac{3.5}{5} = 3\frac{7}{10}$ ✓✓

3.) $1\frac{1}{3}$ $1\frac{2}{3}$

midpoint $= 1\frac{1.5}{3} = 1\frac{3}{6} = 1\frac{1}{2}$ ✓✓

4.) $2\frac{4}{7}$ $2\frac{5}{7}$

midpoint $= 2\frac{4.5}{7} = 2\frac{9}{14}$ ✓✓

5.) $1\frac{3}{8}$ $1\frac{5}{8}$

midpoint $= 1\frac{4}{8} = 1\frac{1}{2}$ ✓✓

6.) $4\frac{7}{9}$ $4\frac{8}{9}$

midpoint $= 4\frac{7.5}{9} = 4\frac{35}{18} = 4\frac{5}{6}$ ✓✓

7. $3\frac{6}{11}$ $3\frac{7}{11}$

midpoint $= 3\frac{6.5}{11} = 3\frac{13}{22}$ ✓✓

8. $5\frac{13}{15}$ $5\frac{14}{15}$

midpoint $= 5\frac{13.5}{15} = 5\frac{27}{30} = 5\frac{9}{10}$ ✓✓

9. $6\frac{4}{5}$ $7\frac{1}{5}$

Sets assessed

$\frac{34}{5}$ $\frac{35}{\checkmark 5}$ $\frac{36}{5}$

7 ✓✓

Addendum

Super calculation of the midpoint between two fractions.

27-11-14

LO - To calculate the mean

1.) Blue total = 25
Mean = 25 ÷ 5 = 5 //

2.) White team = 20
Mean = 20 ÷ 5 = 4 //

3.) Red team = 35
Mean = 35 ÷ 5 = 7 //

4.) Green team = 30
Mean = 30 ÷ 5 = 6 //

5.) Yellow team = 25
Mean = 25 ÷ 5 = 5 //

6.) Orange team = 25
Mean = 25 ÷ 5 = 5 //

7.) Nancy's total = 15
Mean = 15 ÷ 3 = 5 //

8.) Gary's total = 15
Mean = 15 ÷ 3 = 5 //

9.) Kevin's total = 18
Mean = 18 ÷ 3 = 6 //

10.) Corinna's total = 18
Mean = 18 ÷ 3 = 6 //

11.) Parvati's total = 18
Mean = 18 ÷ 3 = 6 //

12.) Tom's total = 12
Mean = 12 ÷ 3 = 4 //

13.) Lucky dip total = 40
Mean = 40 ÷ 4 = 10p //

14.) Tombola total = 30
Mean = 30 ÷ 6 = 5p //

15.) Hoopla total = 60
Mean = 60 ÷ 3 = 20p //

16.) Coconut shy total = 115
Mean = 145 ÷ 5 = 23p //

// Super calculation of mean Daiwan