Answers to **6:NA01** to **6:NA:93** can be found in **6:NA00D** and **6:NA00E**, within the Level Contents of this section.

Answers to Level 6 Multiplication and Division

6:01

1 **a** 18 (each), $36 \div 2 = 18$, 18
b 12 (each), $36 \div 3 = 12$, 12
c 6 (each), $36 \div 6 = 6$, 6
d 9 (each), $36 \div 4 = 9$, 9
e 5 (each r 1), $36 \div 7 = 5$ r 1, $5\frac{1}{7}$

2 **a** 54, $54 \div 6 = 9$, $54 \div 9 = 6$
b 63, $63 \div 9 = 7$, $63 \div 7 = 9$
c 16, $16 \div 2 = 8$, $16 \div 8 = 2$

3 **a** 9 **b** 5 **c** 8 **d** 9
e 8 **f** 6 **g** 8 **h** 9
i 100 **j** 81 **k** 7

4

$48 \div 6 = 8$	$6\overline{)48} = 8$	$\frac{48}{6}$
$45 \div 5 = 9$	$5\overline{)45} = 9$	$\frac{45}{5}$
$64 \div 8 = 8$	$8\overline{)64} = 8$	$\frac{64}{8}$

5 **a** 6 **b** 6 **c** 3 **d** 7
e 5 **f** 8 **g** 9 **h** 4

6 **a** 11 **b** 5 **c** 5 **d** 2
e 55 **f** 4

6:02

1 **a** 8 **b** 8 **c** 9 **d** 9 **e** 7
f 6 r 1 **g** 7 r 1 **h** 7 r 3 **i** 7 r 2

2 **a** 12 **b** 12 **c** 28 **d** 14
e 15 r 2 **f** 14 r 2 **g** 7 r 3 **h** 7 r 2
i 11 r 3 **j** 15 r 4 **k** 10 r 1 **l** 6 r 5

3 **a** 112 **b** 231 **c** 101 **d** 341
e 231 r 2 **f** 211 r 3 **g** 210 (r 0) **h** 320 (r 0)
i 1·24 **j** 11·4 **k** \$122 **l** \$112 r 4

4 **a** \$0.90 (or 90c) **b** \$0.25 (or 25c)
c \$0.71 (or 71c) **d** \$0.60 (or 60c)

6:03

1 **a** 450 **b** 540 **c** 150 **d** 480
e 3200 **f** 1200 **g** 35000 **h** 36000

2 **a** 24, 240, 2400, 24000 **b** 24, 240, 2400, 24000
c 63, 630, 6300, 63000 **d** 35, 350, 3500, 35000

3 **a** 3·7, 37, 370 **b** 0·02, 0·2, 2
c \$9.35, \$93.50, \$935

4 **a** 230 **b** 340 **c** 410 **d** 115
e 420 **f** 145 **g** 315 **h** 205

5 **a** 212 **b** 88 **c** 292 **d** 184 **e** 72
f 116 **g** 9·3 **h** 24·8 **i** 121·2

6:03 Extension

1 **a** 4×3 hundreds = 1200 **b** 400
c 630 **d** 800
e 1800 **f** 20000 **g** 28000

2 **a** 21, 210, 2100 **b** 210, 2100, 21000
c 32, 320, 3200 **d** 320, 3200, 32000

3 **a** 170, 340 **b** 450, 1350 **c** 620, 2480
d 1800 **e** 540 **f** 3430 **g** 4240

4 **a** 310 **b** 240 **c** 105 **d** 80
e 465 **f** 390 **g** 660 **h** 2080

5 Multiply by 100 and halve.
a 700 **b** 1400 **c** 1050 **d** 2800

6:04

1 **a** 600 **b** 800 **c** $70 \times 10 \times 2 = 1400$
d $50 \times 10 \times 2 = 1000$

2 **a** 1500 **b** 2100 **c** $40 \times 10 \times 3 = 1200$
d $20 \times 10 \times 3 = 600$ **e** $90 \times 10 \times 3 = 2700$
f $30 \times 10 \times 3 = 900$

3 **a** 30, 300, 3000, 30000 **b** 60, 600, 6000, 60000
c 180, 1800, 18000, 180000
d 210, 2100, 21000, 210000

4 **a** 400 **b** 900 **c** 1600 **d** 1800
e 4800 **f** 2100 **g** 1600 **h** 2000
i 2400 **j** 5600 **k** 5400 **l** 2500
m 32000 **n** 15000 **o** 42000 **p** 36000

5 400 (envelopes), $400 \times 50c = 20000c = \$200$

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Answers to Level 6 Multiplication and Division

6:05

1 **a** $230 \times 7 = 1610$ **b** $420 \times 6 = 2520$
c $34 \times 10 \times 6 = 340 \times 6 = 2040$
d $19 \times 10 \times 8 = 190 \times 8 = 1520$

2

	×10	× 20	× 30	× 40
41	**410**	410 × 2 **820**	410 × 3 **1230**	410 × 4 **1640**
62	**620**	**1240**	**1860**	**2480**
50	**500**	**1000**	**1500**	**2000**
121	**1210**	**2420**	**3630**	**4840**
307	**3070**	**6140**	**9210**	**12280**

3 **a** 390 **b** 540 **c** 1530 **d** 7200
e 11550 **f** 8520 **g** 15200 **h** 13680

4 **a** 368 **b** 128 **c** 57 **d** 186·3
e 212·8 **f** 65·2

5 **a** \$16 **b** \$44 **c** \$24

6:05 Consolidation

1 **a** $240 \times 3 = 720$ **b** $33 \times 10 \times 4 = 330 \times 4 = 1320$
c $18 \times 10 \times 7 = 180 \times 7 = 1260$
d $43 \times 10 \times 5 = 430 \times 5 = 2150$
e $36 \times 2 = 72$ **f** $1{\cdot}9 \times 10 \times 6 = 19 \times 6 = 114$

2

	× 10	× 20	× 30	× 40	× 50
13	130	130 × 2 260	130 × 3 390	130 × 4 520	130 × 5 650
47	470	470 × 2 940	470 × 3 1410	470 × 4 1880	470 × 5 2350
22	220	220 × 2 440	220 × 3 660	220 × 4 880	220 × 5 1100
132	1320	1320 × 2 2640	1320 × 3 3960	1320 × 4 5280	1320 × 5 6600
4·1	41	41 × 2 82	41 × 3 123	41 × 4 164	41 × 5 205

3 **a** 720 **b** 90 **c** 275 cm

6:06

1 **a** 45 **b** 42 **c** 72 **d** 0
e 42 **f** 48 **g** 36 **h** 24
i 120 **j** 560 **k** 300 **l** 160

2 **a** E: 90, 96 **b** E: 120, 102
c E: 4 × 30 or 120, 128 **d** E: 400, 460
e E: 900, 855 **f** E: 1200, 1112
g E: 2800, 2583

3 **a** E: 6, 4·626 **b** E: 16, 16·52
c E: 160, 137·6 **d** E: 9, 7·68

4 **a**

	5	2
×		4
2	0	8

b

	2	
	9	8
×		3
2	9	4

c

	1	2	
	1	2	5
×			5
6	2	5	

5 **a** Answers will vary.
b \$2.53, which rounds to \$2.55

6:06 Consolidation

1 **a** 18 **b** 36 **c** 42 **d** 72 **e** 200
f 210 **g** 540 **h** 480 **i** 600 **j** 800
k 700 **l** 1800

2 **a** 92 **b** 369 **c** 296 **d** 208 **e** 245

3 **a** 320 **b** 920 **c** 1860 **d** 510 **e** 2190
f 3220 **g** 3100 **h** 6200 **i** 9300

4 **a** 944 **b** 906 **c** 798 **d** 726

5 **a** 5·04 **b** 1·89 **c** 43·8 **d** 98·8

6 Answers will vary.

6:07

1 **a** $2\frac{2}{6}$ **b** $2\frac{2}{4}$ **c** $6\frac{1}{3}$

2 **a** $3\frac{3}{8}$ **b** $8\frac{3}{5}$ **c** $8\frac{2}{3}$
d $9\frac{4}{9}$ **e** $9\frac{3}{8}$ **f** $10\frac{5}{6}$
g $49\frac{2}{5}$ **h** $92\frac{1}{4}$ **i** $82\frac{5}{7}$

3 **a** $16\frac{1}{4}$ **b** $12\frac{5}{6}$ **c** $10\frac{3}{5}$ **d** $6\frac{6}{7}$
e $126\frac{1}{3}$ **f** $128\frac{2}{3}$ **g** $107\frac{6}{8}$ **h** $463\frac{1}{2}$

4 **a** $138\frac{1}{6}$ **b** $151\frac{3}{4}$ **c** $107\frac{2}{9}$ **d** $111\frac{1}{7}$

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Answers to Level 6 Multiplication and Division

6:08

1 **a** 70, 60 **b** 8, 80, 70 **c** 9, 90, 40
d 90 **e** 60 **f** 60

2 **a** 420 ÷ 7, 60 **b** 630 ÷ 9, 70
c 720 ÷ 8, 90 **d** 360 ÷ 9, 40
e 640 ÷ 8, 80 **f** 480 ÷ 6, 80
g E = $60

3 **a** 50 **b** 60 **c** 70 **d** 40
e 90 **f** 50

4 **a** 53 **b** 63 **c** 91·5 **d** 43
e 114·75 **f** 45

5 **a** 84, 42 **b** 162, 81 **c** 71 **d** 161
e 82 **f** 92 **g** 123 **h** 214

6:09

1 **a** $240 \div 3 + 18 \div 3 = 80 + 6 = 86$
b $420 \div 7 + 35 \div 7 = 60 + 5 = 65$
c $240 \div 6 + 24 \div 6 = 40 + 4 = 44$
d $640 \div 8 + 24 \div 8 = 80 + 3 = 83$

2 **a** 93 **b** 74 **c** 68 **d** 91
e 8·7 **f** 3·8 **g** 0·89 **h** 0·67

3 **a** $62\frac{3}{6}$ **b** $24\frac{2}{8}$ **c** $84\frac{3}{5}$ **d** $71\frac{3}{7}$
e $47\frac{1}{4}$ **f** $73\frac{2}{9}$ **g** $66\frac{4}{6}$ **h** $52\frac{2}{3}$

4 29 weeks

6:09 Consolidation

1 **a** 7 **b** 4 **c** 9 **d** 9
e 8 **f** 9 **g** 7 **h** 8

2 **a** 20 **b** 4 **c** 10 **d** 10
e 30 **f** 70 **g** 3 **h** 3

3 **a** 21 **b** 16 **c** 10 **d** 15
e 213 **f** 201 **g** 340 **h** 111

4 **a** 26 r 1 **b** 13 r 3 **c** 11 r 6 **d** 15 r 2
e 105 r 6 **f** 108 r 3 **g** 246 r 1 **h** 133 r 1

5 **a** $9\frac{2}{5}$ **b** $9\frac{1}{6}$ **c** $8\frac{2}{3}$ **d** $9\frac{2}{4}$
e $93\frac{1}{4}$ **f** $93\frac{0}{6}$ (or 93)
g $89\frac{1}{3}$ **h** $96\frac{3}{4}$

6:09PT Progress Test answers and records are at the end of this section.

6:10

1 **a** $2000 \times 5 + 700 \times 5 + 20 \times 5 + 4 \times 5$
$= 10000 + 3500 + 100 + 20 = 13620$
b $1000 \times 4 + 400 \times 4 + 80 \times 4 + 3 \times 4$
$= 4000 + 1600 + 320 + 12 = 5932$

2 **a** 16800 **b** 39798 **c** 22962 **d** 6170
e 31·688 **f** 93·64 **g** $194.67 **h** $54.95

3 **a** E: 18000, 19506 **b** E: 6000, 5676
c E: 12000, 12304 **d** E: 10000, 12020

4 Answers will vary.

6:10 Consolidation

1 **a** 6170 **b** 6249 **c** 8630 **d** 9476
e 24896 **f** 28161 **g** 7182 **h** 9144
i 9476 **j** 33534 **k** 30875 **l** 23547
m 21·384 **n** 391·23 **o** $82.98 **p** $206.00

2 **a** Find amount spent: $4 \times \$42.50 = \$170$
b Find amount of change: $\$200 - \$170 = \$30$

6:11

1 **a**

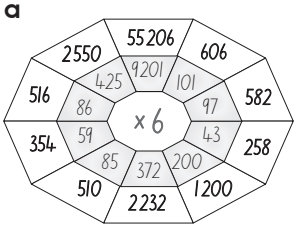
×	6	9	7	5	8
5	30	45	35	25	40
6	36	54	42	30	48
7	42	63	49	35	56
8	48	72	56	40	64
9	54	81	63	45	72

b

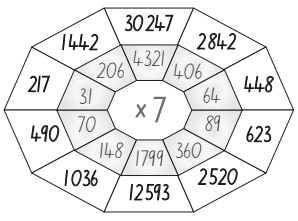
×	20	11	12	24	50
3	60	33	36	72	150
5	100	55	60	120	250
6	120	66	72	144	300
9	180	99	108	216	450
7	140	77	84	168	350

2 **a** 580 (trees) **b** 1230 km
c 168 (bottles), $672 **d** $7500, $11250, $15000

3 **a**



b



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Answers to Level 6 Multiplication and Division

6:11 Extension

1 a 1425 **b** 1934 **c** 2712 **d** 2056 **e** 5481 **f** 3172

2 a 12865 **b** 28512 **c** 2345 **d** 1431

3 Answers will vary.

6:12

1 a $\frac{2}{4}$, $\frac{4}{8}$ **b** $\frac{6}{8}$, $\frac{12}{16}$

2 a $\frac{2}{10}$ **b** $\frac{12}{18}$ **c** $\frac{10}{45}$ **d** $\frac{3}{24}$

3 a $\frac{2}{12}$ **b** $\frac{2}{16}$ **c** $\frac{4}{18}$ **d** $\frac{10}{14}$
e $\frac{3}{21}$ **f** $\frac{6}{15}$ **g** $\frac{12}{15}$ **h** $\frac{21}{27}$

4

	$\times 3$ $\times 3$	$\times 4$ $\times 4$	$\times 6$ $\times 6$
$\frac{1}{2}$	**$\frac{3}{6}$**	**$\frac{4}{8}$**	**$\frac{6}{12}$**
$\frac{1}{4}$	**$\frac{3}{12}$**	**$\frac{4}{16}$**	**$\frac{6}{24}$**
$\frac{1}{3}$	**$\frac{3}{9}$**	**$\frac{4}{12}$**	**$\frac{6}{18}$**

5 Answers will vary.

a $\frac{1}{6} = \frac{2}{12} = \frac{3}{18}$ etc **b** $\frac{3}{5} = \frac{6}{10} = \frac{9}{15}$ etc
c $\frac{3}{8} = \frac{6}{16} = \frac{9}{24}$ etc **d** $\frac{2}{9} = \frac{4}{18} = \frac{6}{27}$ etc
e $\frac{5}{12} = \frac{10}{24} = \frac{15}{36}$ etc **f** $\frac{5}{7} = \frac{10}{14} = \frac{15}{21}$ etc

6:13

1 a 18, 70, 516, 147372 and 9984 should be circled.
b Answers will vary.

2 a 18, 516, 147372 and 9984 should be circled.
b Answers will vary.

3 148, 604, 196, 252, 23228 and 109616 should be circled.

4 a When the last digit is 5 or 0.
b Answers will vary. (234125 and 234120)

5 72, 2178 and 274506 should be circled. (Answers for the two numbers will vary.)

6 8040, 2432, 98032 and 104816 should be circled. (Answers for the two numbers will vary.)

7 72, 258111, 15111 and 304506 should be circled. (Answers for the two numbers will vary.)

8 When the last digit is 0.

6:14

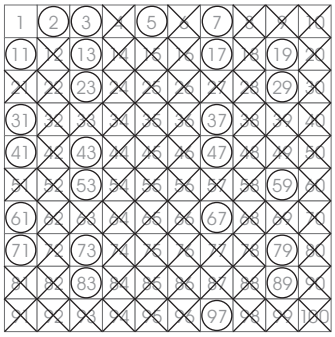
1 a 2 **b** 1 **c** 1 **d** odd

2 a

factors	1 11	1 12	1 13	1 14	1 15
	11	12	13	14	15
factors		2 6		2 7	3 5
		3 4			
factors	1 16	1 17	1 18	1 19	1 20
	16	17	18	19	20
factors	2 8		2 9		2 10
	4		3 6		4 5

b The boxes containing 11, 13, 17 and 19 will be coloured red.
The boxes containg 12, 14, 15, 16, 18 and 20 will be coloured blue.

3 a b and c →



d no

e The others are multiples of 5.

f 2, 3, 5, 7, 11, 13, 7, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97

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Answers to Level 6 Multiplication and Division

6:14 Extension

1 **a** prime (numbers) **b** composite (numbers)

2

1	(2)	(3)	4	(5)
6	(7)	8	9	10
(11)	12	(13)	14	15
16	(17)	18	(19)	20

3 **a** 2 **b** 13 **c** 23 **d** 29 **e** 31 **f** 37

4 Answers will vary.

a 4, 6, 8, (etc **b** 6, 9, 12, (etc)
c 10, 15, 20, (etc) **d** 14, 21, 28, (etc)

5 **a** 16 **b** 9 **c** 12

6 Order will vary.

a 1, 18, 2, 9, 3, 6 **b** 1, 15, 3, 5
c 1, 20, 2, 10, 4, 5 **d** 1, 27, 3, 9

7

a 12	**b** 21	**c** 30	**d** 56
e 8	**f** 6	**g** 60	**h** 280
i 1320	**j** 210	**k** 30	**l** 300
m 24	**n** 36		

6:14 Extension B

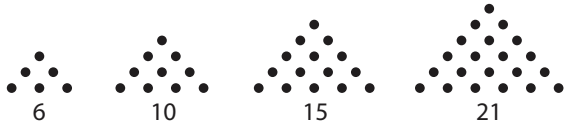
1 **a** 16 **b** 49 **c** 529 **d** 361

2 **a** 2^2+5, 3^2+7, 4^2+9

3 **a** 3 **b** 5 **c** 7 **d** 9

4 **a** 1, 9, 3 **b** 1, 25, 5 **c** 1, 49, 7

5



8 **a** $1+2+3$ **b** $1+2+3+4$
c $1+2+3+4+5$ **c** $1+2+3+4+5+6$

9 **a** $6+10=16$ **b** $10+15=25$

6:15

1 **a** 2, 3, 5, 7 **b** 11, 13, 17, 19 **c** 23, 29 **d** 31, 37

2 42, 44, 45, 46, 48, 49

3

a 45	**b** 48	**c** 56	**d** 36

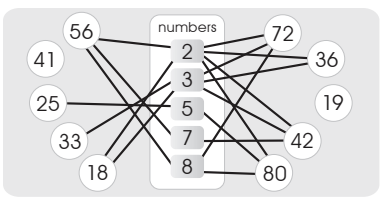
4

a 5	**b** 7	**c** 9	**d** 11

5

a 64	**b** 100	**c** 36	**d** 225
e 400	**f** 144	**g** 1	**h** 10000

6 **a**



b Answers will vary. 6, 12, 18, 24, 30

c Answers will vary. 108, 117, 126, 135, 144

7 **a** 1, 52, 2, 26, 4, 13

b 1, 72, 2, 36, 3, 24, 4, 18, 6, 12, 8, 9

c 1, 100, 2, 50, 4, 25, 5, 20, 10

d 1, 48, 2, 24, 3, 16, 4, 12, 6, 8

8 **a** 15, 18, 21 **b** 49, 36, 25 **c** 72, 63, 54
d 128, 256, 512

6:15PT Progress Test answers and records are at the end of this section.

6:16

1

a $27\frac{1}{3}$	**b** $12\frac{2}{6}$	**c** $11\frac{5}{8}$	**d** $24\frac{1}{4}$	**e** $39\frac{1}{2}$
f $9\frac{5}{9}$	**g** $9\frac{1}{5}$	**h** $11\frac{4}{7}$	**i** $19\frac{1}{8}$	**j** $40\frac{6}{7}$
k 73 (or $73\frac{0}{6}$)	**l** $155\frac{3}{4}$			

2 **a** $2\frac{3}{6}$ (or $2\frac{1}{2}$ doughnuts) **b** $47\frac{3}{5}$ cm (or 47·6 cm)

c Red: $8\frac{2}{3}$, Yellow: $9\frac{2}{3}$, Blue: $10\frac{2}{3}$, Tim and Mark

6:17

1

a \$12.40	**b** 12·4	**c** \$5.50	**d** 5·5

2

a \$8.50	**b** \$9.25	**c** \$33.60
d \$201.50	**e** \$414.50	**f** \$125.40
g \$469	**h** \$19.25	**i** \$34.50

3

a 5·75	**b** 25·5	**c** 56·75
d 432·5	**e** 90·4	**f** 91·25

4

a 0·25	**b** 0·88	**c** 0·6	**d** 0·78
e 2·37	**f** 8·74	**g** 1·53	**h** 11·75
i 4·24	**j** 15·96	**k** 3·54	**l** 18·30

6:17 Consolidation

1

a $17\frac{1}{2}$	**b** $11\frac{1}{2}$ or $11\frac{2}{4}$	**c** $213\frac{2}{3}$	**d** $149\frac{2}{5}$
e $4\frac{5}{6}$	**f** $5\frac{1}{3}$ or $5\frac{3}{9}$	**g** $17\frac{5}{7}$	**h** 77 or $77\frac{0}{3}$
i $10\frac{1}{7}$	**j** $10\frac{5}{6}$	**k** $100\frac{3}{4}$	**l** $104\frac{1}{2}$ or $104\frac{4}{8}$

2

a 4·7	**b** 38·6	**c** 0·37	**d** 1·41

3

a 7·2	**b** 5·5	**c** 7·4	**d** 8·2
e \$17.10	**f** \$11.50	**g** \$0.52	**h** \$1.02
i 36·5	**j** 426·5	**k** 145·8	**l** 104·5

4 **a** 31 ropes (3m of rope is left) **b** \$31.25

c 1 (or 1·5) sandwiches **d** 26·5 m or ($26\frac{1}{2}$ m)

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Answers to Level 6 Multiplication and Division

6:17 Consolidation B

1 **a** 203 **b** 102 **c** 110 **d** 340

2 **a** 109 **b** 108 **c** 103 **d** 108
e 1·06 **f** 2·04 **g** 3·07 **h** 1·05

3 **a** $50\frac{1}{3}$ **b** $50\frac{4}{5}$ **c** $20\frac{6}{7}$ **d** $90\frac{1}{3}$
e $40\frac{5}{9}$ **f** $60\frac{5}{6}$ **g** $40\frac{1}{2}$ or $40\frac{2}{4}$ **h** $50\frac{3}{8}$

6:18

1 **a** 14 **b** 7 **c** 13 **d** 40 **e** 50 **f** 32

2

	÷10	÷20	÷30	÷40
840	**84**	**42**	**28**	**21**
1200	**120**	**60**	**40**	**30**
2520	**252**	**126**	**84**	**63**
7560	**756**	**378**	**252**	**189**

3 **a** 65 **b** 17 **c** 242 **d** 83

4

	÷ by ten first	÷ by two
106	**10·6**	**5·3**
37	**3·7**	**1·85**
349	**34·9**	**17·45**
3826	**382·6**	**191·3**

5 **a** 1·42 **b** 3·405 **c** 3·893 **d** 6·09
e $1.62 **f** $2.64 **g** $0.63

6 **a** 4 **b** 70 **c** 63 **d** 46 **e** 38 **f** 8765

6:18 Consolidation

1 **a** 260 **b** 520 **c** 37 **d** 74
e 1200 **f** 3600 **g** 148 **h** 296

2 **a** 1440 **b** 1350 **c** 2580 **d** 2940
e 166 **f** 215 **g** 43·2 **h** 40·8

3 **a** 86 **b** 43 **c** 36 **d** 9
e 480 **f** 160 **g** 300 **h** 50

4 **a** 38 **b** 76·5 **c** 239 **d** 109

5 **a** 3·57 **b** 1·19 **c** 0·165 **d** 0·033
e 0·231 **f** 0·1155 **g** 0·896 **h** 0·149

6 **a** 23·6 **b** 5·9 **c** 2·76 **d** 4·6
e 9·6 **f** 4·8 **g** 19·1 **h** 9·5

6:19

1 **a** $18 \times 5 = 90$ **b** $56 \div 4 = 14$
c $34 + 27 - 19 = 42$ **d** $146 \times 5 - 23 = 707$
e $184 \div 4 + 24 = 70$

2 **a**

Rule	10	2	8	22
× 3 and + 4	**34**	**10**	**28**	**70**
÷ 2 and + 7	**12**	**8**	**11**	**18**

b

Rule	100	20	80	220
× 4 and – 5	**395**	**75**	**315**	**875**
÷ 4 and – 3	**22**	**2**	**17**	**52**

3 **a** 23 **b** 18 **c** 19 **d** 7 **e** 9
f 200 **g** 19 **h** 8 **i** $\frac{1}{2}$ **j** 100

4 **a** 21 **b** 14 **c** 2 **d** 3 **e** $\frac{7}{8}$
f $\frac{6}{5}$ (or $1\frac{1}{5}$) **g** 5·4 **h** 17

5 **a** 7 **b** 75 **c** 9 **d** 1

6 **a** 5 **b** 4 **c** 1 and 9 (or 3 and 3)
d 7 **e** 90

6:20

1 **a** $37 \times 10 \times 4 = 370 \times 4 = 1480$
b $29 \times 10 \times 6 = 290 \times 6 = 1740$
c $56 \times 10 \times 3 = 560 \times 3 = 1680$
d $73 \times 10 \times 5 = 730 \times 5 = 3650$

2 **a** 2520 **b** 2960 **c** 3750 **d** 5490
e 1620 **f** 3320 **g** 1580 **h** 1560
i 1040 **j** 740 **k** 1520 **l** 5320

6:21

1 **a** $1290 + 43 = 1333$ **b** $520 + 364 = 884$
c $(\mathbf{20} \times 64) + (\mathbf{3} \times 64)$ **d** $(\mathbf{30} \times 58) + (\mathbf{4} \times 58)$

$$\begin{array}{r} 64 \\ \times\ 20 \\ \hline 1280 \end{array} + \begin{array}{r} 64 \\ \times\ 3 \\ \hline 192 \end{array} = 1472 \qquad \begin{array}{r} 58 \\ \times\ 30 \\ \hline 1740 \end{array} + \begin{array}{r} 58 \\ \times\ 4 \\ \hline 232 \end{array} = 1972$$

e $(\mathbf{40} \times \mathbf{49}) + (\mathbf{5} \times \mathbf{49})$ **f** $(\mathbf{20} \times \mathbf{81}) + (\mathbf{4} \times \mathbf{81})$

$$\begin{array}{r} 49 \\ \times\ 40 \\ \hline 1960 \end{array} + \begin{array}{r} 49 \\ \times\ 5 \\ \hline 245 \end{array} = 2205 \qquad \begin{array}{r} 81 \\ \times\ 20 \\ \hline 1620 \end{array} + \begin{array}{r} 81 \\ \times\ 4 \\ \hline 324 \end{array} = 1944$$

2 **a**

$$\begin{array}{r} 73 \\ \times\ 40 \\ \hline 2920 \end{array} + \begin{array}{r} 73 \\ \times\ 1 \\ \hline 73 \end{array} = 2993$$

b

$$\begin{array}{r} 84 \\ \times\ 30 \\ \hline 2520 \end{array} + \begin{array}{r} 84 \\ \times\ 6 \\ \hline 504 \end{array} = 3024$$

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Answers to Level 6 Multiplication and Division

6:22

1 **a** 672 **b** 748 **c** 1 332 **d** 1 568
e 1 387 **f** 1 035 **g** 3 822

2 **a** 1 716 **b** 1 178 **c** 688 **d** 1 792

3 **a**

		2	2	
		3	6	
×		4	4	
	1	4	4	
1	4	4	0	
1	5	8	4	

b

		1	2	
		2	9	
×		2	3	
		8	7	
	5	8	0	
	6	6	7	

6:22 Consolidation

1 **a** 720 **b** 1 410 **c** 1 440 **d** 5 110

2 **a** 1 485 **b** 2 646 **c** 1 102 **d** 3 417
e 1 296 **f** 702 **g** 2 664 **h** 5 456

3 **a** 204·6 **b** 195 **c** 39·9 **d** 11·4

4 **a** 51, 52, 53, 54 **b** 71, 72, 73, 74

6:23

1 **a** 2 256 **b** 1 014 **c** 3 066 **d** 1 170

2 **a** 1 665 **b** 5 022 **c** 2 112 **d** 2 592

3 **a** 1 118 **b** 4 539 **c** 5 100 **d** 3 136

4 **a** 576 cm (or 5·76 m) **b** 1 976 (phones)
c $10.53

5 **a**

	9	7	
4	3 6	2 8	8
5	4 5 1	3 5 1	3
	5	2	

54 × 97 = **5 238**

b

	5	2	
8	4 0	1 6	6
3	1 5	0 6	7
	1	9	

38 × 52 = **1 976**

c

	6	9	
4	2 4	3 6	6
7	4 2 1	6 3 1	0
	5	1	

74 × 69 = **5 106**

6:23 Consolidation

1 **a** 72 r 5 **b** 71 r 2 **c** 1264 r 2 **d** 409 r 1
e 1152 r2 **f** 912 r 1 **g** 3774 r 1 **h** 465 r 7

2 **a** $69\frac{5}{7}$ **b** $93\frac{6}{8}$ or $93\frac{3}{4}$ **c** $1066\frac{4}{6}$ or $1066\frac{2}{3}$ **d** $1852\frac{3}{5}$
e 2988 **f** $2172\frac{3}{4}$ **g** $2438\frac{1}{2}$ **h** $984\frac{5}{9}$

3 **a** 15·9 **b** 0·12 **c** 27·19 **d** 8·70 or 8·7
e 98·5 **f** 134·5 **g** 280·4 **h** 3781·5

4 **a** 312·5 mL or 0·3125 L
b 1821 boxes. Each box had to have 4 handkerchiefs so the last 2 handkerchiefs could not be packed.
c 80 m, 37·5 s

6:24

1 **a** 3 622 g (or 3·622 kg) **b** $52\frac{5}{9}$ runs (per innings)
c $1999\frac{4}{7}$ calories (per day) **d** 1·19 m
e 39·15%

2 **a** 165·3 cents per litre, 149·9 cents per litre
b 15·4 cents **c** 159·1 cents per litre
d Answers will vary. **e** Answers will vary.

6:25

1 **a** 3 536 **b** 24 552 **c** 21 518 **d** 13 494
e 9 542 **f** 22 925 **g** 13 992

2 **a**

	3	7	1	
×		4	5	
	1	8	5	5 × 371
1	4	8	4	0 40 × 371
1	6	6	9	5

b

	1	8	6	
×		6	2	
	3	7	2	2 × 186
1	1	1	6	0 60 × 186
1	1	5	3	2

c

	7	9	4	
×		4	8	
	6	3	5	2 8 × 794
3	1	7	6	0 40 × 794
3	8	1	1	2

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Answers to Level 6 Multiplication and Division

6:26

1 **a** 17520 **b** 5012 **c** 18408 **d** 40122
e 51849 **f** 81592 **g** 4932 **h** 13432
i 12654 **j** 9282 **k** 11250 **l** 22713

2 **a** $39.78 **b** $286.28 **c** $234.78 **d** $490.32

3 **a** $89.04 **b** $92.22 **c** $3.18

6:26 Consolidation

1 **a**

```
  325
×  17
-----
 2275   7 × 325
 3250   10 × 325
-----
 5525
```

b

```
  402
×  23
-----
 1206   3 × 402
 8040   20 × 402
-----
 9246
```

c

```
  118
×  46
-----
  708   6 × 118
 4720   40 × 118
-----
 5428
```

d

```
  362
×  37
-----
 2534   7 × 362
10860   30 × 362
-----
13394
```

e

```
  246
×  38
-----
 1968   8 × 246
 7380   30 × 246
-----
 9348
```

f

```
  591
×  63
-----
 1773   3 × 591
35460   60 × 591
-----
37233
```

g

```
 $242
×  27
-----
 1694   7 × 242
 4840   20 × 242
-----
 $6534
```

h

```
 $182
×  49
-----
 1638   9 × 182
 7280   40 × 182
-----
 $8918
```

i

```
 $375
×  64
-----
  1500   4 × 375
 22500   60 × 375
-----
$24000
```

j

```
 2·76
×  41
-----
  2·76   1 × 2·76
110·40   40 × 2·76
-----
113·16
```

k

```
 3·92
×  27
-----
 27·44   7 × 3·92
 78·40   20 × 3·92
-----
105·84
```

l

```
 0·75
×  82
-----
  1·50   2 × 0·75
 60·00   80 × 0·75
-----
 61·50
```

m

```
 $1.56
×  29
-----
 14.04   9 × 1·56
 31.20   20 × 1·56
-----
 $45.24
```

n

```
 $3.05
×  15
-----
 15.25   5 × 3·05
 30.50   10 × 3·05
-----
 $45.75
```

o

```
 $2.34
×  74
-----
  9.36   4 × 2·34
163.80   70 × 2·34
-----
$173.16
```

6:27

1 **a** 6344 **b** 9933 **c** 10880 **d** 12220
e 37350 **f** 66740 **g** 29346 **h** 15532
i $126.69 **j** $321.92

2 **a** $126 **b** $160 **c** $111.72 **d** $120

3 **a** $74 **b** $40
c $88.28 (or $88.30 if rounded) **d** $80

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Answers to Level 6 Multiplication and Division

6:28

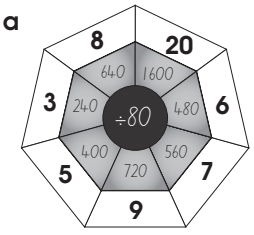
1

10 × 30 = 300		300 ÷ 10 = 30	
20 × 30	600	600 ÷ 20	30
30 × 30	900	900 ÷ 30	30
70 × 30	2100	2100 ÷ 70	30

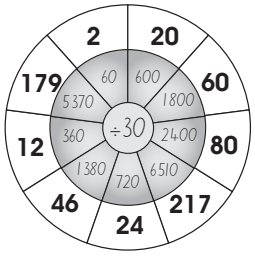
10 × 500	5000	5000 ÷ 10	500
20 × 500	10000	10000 ÷ 20	500
50 × 500	25000	25000 ÷ 50	500
70 × 500	35000	35000 ÷ 70	500

An extra line should have been written.

2 **a**



b



3 **a** 1504 **b** 1623 **c** 642
d 327·6 **e** 123·1 **f** 157 **g** 483

4

×	8	9	70	17	23
7	56	63	490	119	161
9	72	81	630	153	207
6	48	54	420	102	138
4	32	36	280	68	92
10	80	90	700	170	230

a 56 **b** 54 **c** 90 **d** 92
e 490 **f** 170 **g** 102 **h** 81
i 92 **j** 70 **k** 630 **l** 23

6:29

1 **a** 1850 **b** 2100 **c** 2600 **d** 4300
e 1450 **f** 3050 **g** 7100 **h** 10400
i 20800 **j** 16950

2 **a** 1575 **b** 4200 ÷ 4 = 1050 **c** 2400
d 925 **e** 400 **f** 1100 **g** 1300
h 650 **i** 4100 **j** 6800 **k** 9150

3 **a** 3663 **b** 45 × 100 − 45 = 4455
c 2600 − 26 = 2574 **d** 5800 − 58 = 5742
e 14 × 200 − 14 = 2786 **f** 32 × 300 − 32 = 9568

4 **a** \$27.93 **b** \$17.94 **c** \$2 × 8 − 8c = \$15.92
d \$6 × 9 − 9c = \$53.91 **e** \$20 × 5 − 5c = \$99.95
f \$4 × 7 − 7 × 2c = \$27.86
g \$3 × 6 − 6 × 2c = \$17.88

6:30

1 **a** 36,500 **b** 14,756 **c** 21,786
d 927 **e** 10,000 **f** 4,659
g 365,824·7 **h** 7,594·28 **i** 27,968
j 864·239

2 **a** 457281, 62220222 **b** 2638420, 5672084
c 2638420, 71810915 **d** 457281, 62220222

3 **a** 28981 **b** 360423 **c** 18000000
d 4053 **e** 12307 **f** 7033
g 14322 **h** 28943

4 **a** \$1,293,858 **b** 209000 (acres)
c \$19,600, (about) \$940,800

6:30 Consolidation

1 **a** 4, 1100 **b** 720 **c** 140 **d** 900
e 700 **f** 900 **g** 1400 **h** 5
i 2 **j** 8 **k** 3

2 **a** 654 ÷ 6 → 600 ÷ 6 + 54 ÷ 6 → 100 + 9 = 109

b 297 ÷ 3 → 270 ÷ 3 + 27 ÷ 3 → 90 + 9 = 99

c 196 ÷ 4 → 160 ÷ 4 + 36 ÷ 4 → 40 + 9 = 49

d 297 ÷ 9 → 270 ÷ 9 + 27 ÷ 9 → 30 + 3 = 33

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Answers to Level 6 Multiplication and Division

e 424 ÷ 4 → 400 ÷ 4 + 24 ÷ 4 → 100 + 6 = 106

f 864 ÷ 8 → 800 ÷ 8 + 64 ÷ 8 → 100 + 8 = 108

g 742 ÷ 7 → 700 ÷ 7 + 42 ÷ 7 → 100 + 6 = 106

h 448 ÷ 8 → 400 ÷ 8 + 48 ÷ 8 → 50 + 6 = 56

6:31

1 **a** 400 km **b** 32 L **c** $44.64 **d** 5 hours
e Bulahdelah or Nabiac **f** 3:15 pm

2 **a**

Serves 5.
INGREDIENTS

125 g	butter
250 g	dried apricots
2	eggs
125 g	white breadcrumbs
$\frac{1}{4}$ cup	slithered almonds
$\frac{1}{8}$ cup	glace cherries
$\frac{2}{3}$ cup	mixed dried peel
$\frac{1}{2}$	green apple
$\frac{3}{4}$	cups brown sugar
$\frac{3}{4}$	cups plain flour

b 6 (bottles)

6:31PT Progress Test answers and records are at the end of this section.

Multiplication and Division answers to **Maths Builder 6** can be found in the Level Contents as

6:NA00D Answers: **6:NA01 - 6:NA54C**
6:NA00E Answers: **6:NA55 - 6:NA93**

Test

Assessment for the whole of Level 6

d 9 **e** 4 **f** 49

2 **a**
$$\begin{array}{r} 263 \\ \times\ \ 4 \\ \hline 1052 \end{array}$$

b
$$\begin{array}{r} 0{\cdot}721 \\ \times\ \ 5 \\ \hline 3{\cdot}605 \end{array}$$

c 4) 6 2 9 = **1571** r **1**

d 7) 8 · 4 7 = **1 · 21**

3 **a** 180 **b** 2 **c** 252 **d** 4000
e 470 **f** 780 **g** 39 **h** 1360

4 **a** 2, 3, 5, 7, 11 **b** 6, 9, 12
c 2, 4, 6, 8, 10, 12 **d** 1, 12, 2, 6, 3, 4
e 4, 8, 12

5 **a** 44430 **b** 95·68

6 **a** 80 **b** 81

7 **a** $8\frac{3}{9}$ or $8\frac{1}{3}$ **b** $55\frac{1}{7}$ **c** $113\frac{1}{3}$

8 **a** 11 **b** 27 **c** 10 **d** $1\frac{4}{8}$ or $1\frac{1}{2}$

9 **a** 2150 **b** 111

10 **a** $32 \times 45 = (30 \times \mathbf{45}) + (2 \times \mathbf{45})$
$= \mathbf{1350} + \mathbf{90}$
$= \mathbf{1440}$

b 53×37
$$\begin{array}{r} 53 \\ \times\ \ 7 \\ \hline 371 \end{array} + \begin{array}{r} 53 \\ \times\ 30 \\ \hline 1590 \end{array} = \mathbf{1961}$$

c
$$\begin{array}{r} 73 \\ \times\ 29 \\ \hline 657 \\ 1460 \\ \hline 2117 \end{array} \quad \begin{array}{l} 9 \times 73 \\ 20 \times 73 \end{array}$$

11 **a** $13\frac{5}{6}$ **b** $184\frac{2}{4}$ or $184\frac{1}{2}$ **c** $1\frac{1}{2}$

12 **a** $7.25 **b** 25·5

13 **a** 721 **b** 637 **c** 170

14 **a** 3200 **b** 12000 **c** 30 **d** 200
e 3600 **f** 900 **g** 2673 **h** $7.96

15 **a**
$$\begin{array}{r} 233 \\ \times\ \ 18 \\ \hline 1864 \\ 2330 \\ \hline 4194 \end{array}$$

b
$$\begin{array}{r} \$1.65 \\ \times\ \ 27 \\ \hline 11.55 \\ 33.00 \\ \hline \$44.55 \end{array}$$

c
$$\begin{array}{r} \$3.20 \\ \times\ \ 34 \\ \hline 12.80 \\ 96.00 \\ \hline \$108.80 \end{array}$$

16 **a** 4) 6 3 2 9 4 7 0·0 = **1582367·5**

b 5) $245564.00 = **$49112.80**

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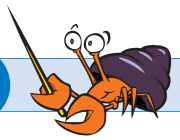
6:09 PTA Level 6, Progress test 1, Answers

(Multiplication & division)



1 : having difficulty
2 : developing understanding
3 : progressing well

1 **a** 6×9 **54** **b** 7×4 **28** **c** $48 \div 8$ **6**

d $81 \div 9$ **9** **e** $\frac{36}{4}$ **9** **f** 6^2 **36**

2 **a**

	2	1	
	2	6	3
×			4
	1	0	5 2

b

	3	1		
	0	· 7	2	1
×				5
	3	· 6	0	5

c

	1	7	2 r 2
3) 5	²1	8	

d

	2	.	2	5
3) 6	· 7		¹5	

3 Use a strategy to complete:

a 3×80 **240** **b** $0{\cdot}05 \times 200$ **10** **c** 71×6 **426**

d 30×60 **180** **e** 89×10 **890** **f** 52×20 **1040**

g $2{\cdot}5 \times 30$ **75** **h** 36×80 **2880**

For treatment, go to:

6:01
6:02
6:06
6:09

Also:
6:06C, 6:09C
6:11, 6:11E

6:03, 6:04
6:05

Also:
6:03E, 6:05C

Maths Builder Year 6
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Name: _____ Class: _____

Progress Test Record (Print this sheet to keep a record of remedial treatment.)

- The student should complete the test and then have it marked.
- Show where each error was made by placing a stroke under the question number.
- Use the worksheets listed to review the concept.
- Make the stroke into a cross when the error has been treated.
- When the review is complete, retest the questions where errors occurred.

6:09 PTR Multiplication & division, Level 6

Question	1	2	3											
Errors ⁄														
Colour the worksheets completed.	6:01	6:01	6:03											
	6:02	6:02	6:04											
	6:06	6:06	6:05											
	6:09	6:09	6:03E											
Retest														

Comments: _____

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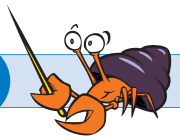
6:15 PTA Level 6, Progress test 2, Answers

(Multiplication & division)



1 : having difficulty
2 : developing understanding
3 : progressing well

For treatment, go to:

1 From 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 write the:

a prime numbers. **2, 3, 5, 7, 11**

b composite numbers with a factor of 3. **6, 9, 12**

c numbers that are multiples of 2. **2, 4, 6, 8, 10, 12**

d factors of 12. **1, 12, 2, 6, 3, 4**

e numbers divisible by 4. **4, 8, 12**

6:13
6:14
6:15

Also: 6:14E, 6:14E B

1 2 3

2 **a**

$$\begin{array}{r} {\scriptstyle 1\ \ 2} \\ 6304 \\ \times\ \ 5 \\ \hline 31520 \end{array}$$

b

$$\begin{array}{r} {\scriptstyle 5\ 7\ 3} \\ 46{\cdot}94 \\ \times\ \ 8 \\ \hline 375{\cdot}52 \end{array}$$

6:10

Also: 6:10C, 6:11

1 2 3

3 Use a strategy to complete:

a 420 ÷ 6 **70** **b** 435 ÷ 5 **87**

6:08

1 2 3

4 **a**

$$\begin{array}{r} 785 \\ 4\overline{)3\ 1\ {}^{3}4\ {}^{2}0} \end{array}$$

b

$$\begin{array}{r} 712 \\ 3\overline{)2\ 1\ 3\ 6} \end{array}$$

6:07, 6:23C

c Tony had a total score of 1 260 points after 6 games of Ten Pin bowling. What was his average score? **210**

1 2 3

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Name: _____ Class: _____

Progress Test Record (Print this sheet to keep a record of remedial treatment.)

- The student should complete the test and then have it marked.
- Show where each error was made by placing a stroke under the question number.
- Use the worksheets listed to review the concept.
- Make the stroke into a cross when the error has been treated.
- When the review is complete, retest the questions where errors occurred.

6:15 PTR Multiplication & division, Level 6

Question	1	2	3	4											
Errors ☒															
Colour the worksheets completed.	6:13	6:10	6:08	6:07											
	6:14	6:10C		6:23C											
	6:15	6:11													
	6:14E														
Retest															

Comments: _____

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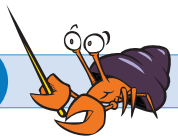
6:24 PTA Level 6, Progress test 3, Answers

(Multiplication & division)



1 : having difficulty
2 : developing understanding
3 : progressing well

For treatment, go to:

1 **a** add 25 and 52 then divide by 7 **11** **b** $6 \times 8 + 5$ **53**

c $12{\cdot}9 - 5{\cdot}4 \div 6$ **12** **d** $\frac{3}{8} \times 7 - \frac{3}{8}$ **$2\frac{2}{8}$** or **$2\frac{1}{4}$**

6:19 1 2 3

6:20 1 2 3

2 **a** 33×40 **1320** **b** $5{\cdot}9 \times 50$ **29·5**

6:21

3 **a** $34 \times 25 = (30 \times$ **25** $) + (4 \times$ **25** $)$

$= $ **750** $+$ **100**

$= $ **850**

6:22

6:22C

b 53×37

	5	3
×	**3**	**0**
	1	**5**	**9**	**0**

+

	2	
	5	3
×		**7**
	3	**7**	**1**

= **1961**

Also:
6:23, 6:11E
6:20

c

	7	3	
×	2	9	
	6	**5**	**7**	**9 × 73**
1	**4**	**6**	**0**	**20 × 73**
2	**1**	**1**	**7**	

1 2 3

4 Write the remainders as fractions.

a **2 8** **$\frac{1}{3}$**

$3\overline{)\,8\ {}^{2}5}$

b **1 4 9** **$\frac{4}{5}$**

$5\overline{)\,7\ {}^{2}4\ {}^{4}9}$

6:16

Also:
6:17C B, 6:23C

c Fifteen doughnuts were shared by 6 friends.

How many did they each get? **$2\frac{3}{6}$** or **$2\frac{1}{2}$**

1 2 3

5 Write the remainders as decimals.

a **$ 6.4 0**

$5\overline{)\,\$\ 3\ 2\ {}^{2}.0\ 0}$

b **5 6·2 5**

$4\overline{)\,2\ 2\ {}^{2}5\ .{}^{1}0\ {}^{2}0}$

6:17

Also:
6:17C, 6:17C B

1 2 3

6 **a** **7 8 5**

$4\overline{)\,3\ 1\ {}^{3}4\ {}^{2}0}$

b **7 1 2**

$3\overline{)\,2\ 1\ 3\ 6}$

6:24

Also:
6:30, 6:23C
6:09C

c Tony had a total score of 1 260 points after 6 games of Ten Pin bowling. What was his average score? **210**

1 2 3

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Name: _____ Class: _____

Progress Test Record (Print this sheet to keep a record of remedial treatment.)

- The student should complete the test and then have it marked.
- Show where each error was made by placing a stroke under the question number.
- Use the worksheets listed to review the concept.
- Make the stroke into a cross when the error has been treated.
- When the review is complete, retest the questions where errors occurred.

6:24 PTR Multiplication & division, Level 6

Question	1	2	3	4	5	6									
Errors ⁄															
Colour the worksheets completed.	6:19	6:20	6:21	6:16	6:17	6:24									
			6:22	6:17C	6:17C	6:30									
			6:22C	6:23C	6:17CB	6:23C									
			6:20			6:09C									
Retest															

Comments: _____

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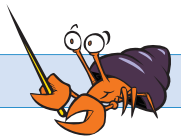
6:31 PTA Level 6, Progress test 4, Answers



(Multiplication & division)

1 : having difficulty
2 : developing understanding
3 : progressing well

For treatment, go to:
6:28, 6:29

Also:
6:18, 6:18C
6:30C

1 2 3

1 Use a strategy to complete:

a	70×30	2100	**b**	80×400	32000	**c**	$800 \div 20$	40
d	$10\,000 \div 20$	500	**e**	42×50	2100	**f**	16×25	400
g	47×99	4653	**h**	$5 \times \$2.99$	\$14.95			

6:25, 6:26
6:27

Also:
6:26C

1 2 3

2 **a**

$$\begin{array}{r} 322 \\ \times\ 18 \\ \hline 2576 \\ 3220 \\ \hline 5796 \end{array}$$

b

$$\begin{array}{r} \$1.65 \\ \times\ 49 \\ \hline 14.85 \\ 66.00 \\ \hline \$120.85 \end{array}$$

c 28 ice creams at \$4.30?

$$\begin{array}{r} \$4.30 \\ \times\ 28 \\ \hline 34.40 \\ 86.00 \\ \hline \$120.40 \end{array}$$

1 2 3

6:30
6:31

3 **a**

$$4\overline{)5\,2\,1\,8\,3\,6\,0} = 1\,3\,0\,2\,0\,9\,0$$

b An inheritance of \$356 675 was divided by 4 people.
How much did each receive?

$$4\overline{)\$356\,675} = \$\ 89\,168\tfrac{3}{4}$$ or \$89 168.75

1 2 3

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Name: _____ Class: _____

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- When the review is complete, retest the questions where errors occurred.

6:31 PTR Multiplication & division, Level 6

Question	1	2	3											
Errors ⁄														
Colour the worksheets completed.	6:28	6:25	6:30											
	6:29	6:26	6:31											
	6:18	6:27												
	6:18C	6:26C												
Retest														

Comments: _____

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