Mathletics

Series G Teacher

Fractions, Decimals and Percentages

Series G – Fractions, Decimals and Percentages

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Series G – Fractions, Decimals and Percentages

Pages 1–2

1a $\frac{4}{6}$

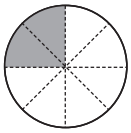
b $\frac{6}{8}$

c 4

d 2

e $\frac{1}{3}, \frac{2}{6}$

2b



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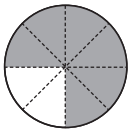

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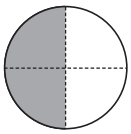

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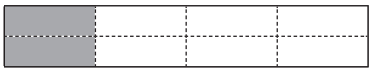


3a 4

b 6

c 6

d 15

e 3

f 2

g 20

h 1

4a 4

b 7

c 6

d 2

e 7

f 5

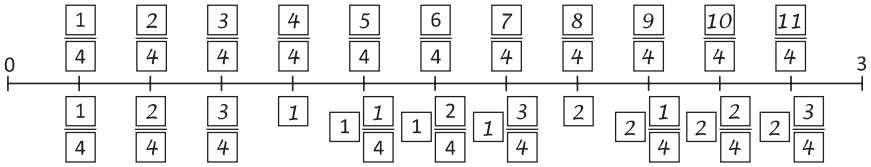
5a $\frac{1}{6}$

b 2; $\frac{2}{12}$

c No. It's the same. $\frac{2}{12} = \frac{1}{6}$

Page 3

1a



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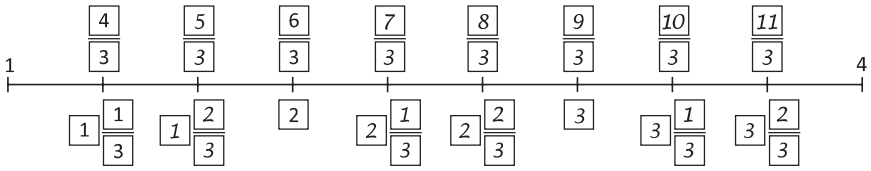

2 A2: $\frac{5}{4}$

A3: $\frac{11}{3}$

A4: $2\frac{2}{4}$

A5: $\frac{9}{3}$

A6: $3\frac{1}{3}$

A7: $\frac{12}{3}$

A8: $\frac{12}{2}$

A9: $\frac{8}{3}$

A10: $2\frac{1}{3}$

Pages 4–5

1a $\frac{1}{2}$

b $\frac{1}{3}$

c $\frac{1}{4}$

d $\frac{2}{3}$

2a $\frac{15}{20}$ HCF is $\boxed{5}$ → $\frac{15 \div 5}{20 \div 5} = \frac{3}{4}$

b $\frac{9}{30}$ HCF is $\boxed{3}$ → $\frac{9 \div 3}{30 \div 3} = \frac{3}{10}$

c $\frac{16}{24}$ HCF is $\boxed{8}$ → $\frac{16 \div 8}{24 \div 8} = \frac{2}{3}$

d $\frac{12}{36}$ HCF is $\boxed{12}$ → $\frac{12 \div 12}{36 \div 12} = \frac{1}{3}$

3a → $\frac{4}{5}$

b → $\frac{1}{2}$

c → $\frac{2}{3}$

d $\frac{3}{4}$

4a $\frac{4}{7}$

b $\frac{3}{5}$

c $\frac{4}{7}$

d $\frac{1}{3}$

e $\frac{8}{9}$

f $\frac{3}{5}$

g $\frac{1}{3}$

h $\frac{3}{11}$

5a $\frac{1}{5}$

b $\frac{3}{5}$

c $\frac{1}{3}$

d $\frac{7}{13}$

e $\frac{6}{13}$

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Series G – Fractions, Decimals and Percentages

Pages 4–5

6 $\frac{1}{2} = \frac{40}{80}$

$\frac{2}{3} = \frac{12}{18}$

$\frac{3}{5} = \frac{60}{100}$

$\frac{1}{9} = \frac{9}{81}$

$\frac{1}{4} = \frac{25}{100}$

$\frac{3}{4} = \frac{15}{20}$

Pages 6–7

1 $\frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{4}{4}, \frac{5}{4}, 1\frac{1}{2}, 1\frac{3}{4}$

2a $\frac{1}{2}$

b $\frac{3}{4}$

c $\frac{1}{2}$

d $\frac{10}{12}$

3 Answers will vary.

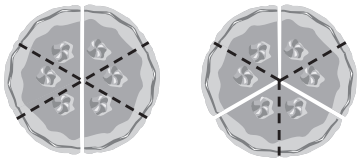
4 Answers will vary.

5

$\frac{1}{4}$ = $\frac{4}{16}$	$\frac{2}{8}$ = $\frac{4}{16}$	$\frac{5}{16}$ = $\frac{5}{16}$	$\frac{1}{2}$ = $\frac{8}{16}$	$\frac{5}{8}$ = $\frac{10}{16}$	$\frac{10}{16}$ = $\frac{10}{16}$
$\frac{6}{8}$ = $\frac{12}{16}$	$\frac{12}{16}$ = $\frac{12}{16}$	$\frac{13}{16}$ = $\frac{13}{16}$	$\frac{7}{8}$ = $\frac{14}{16}$	$\frac{15}{16}$ = $\frac{15}{16}$	$\frac{10}{8}$ = $\frac{20}{16}$

Page 8–9

1a



b $\frac{1}{6}$

2a $\frac{6}{12}$ $\frac{3}{12}$ $\frac{4}{12}$

b $\frac{3}{6}$ $\frac{3}{6}$ $\frac{2}{6}$

2c $\frac{4}{12}$ $\frac{3}{12}$ $\frac{2}{12}$

3a $\frac{1}{2}$ $\frac{2}{3}$ $\frac{3}{9}$

$\frac{9}{18}$ $\frac{12}{18}$ $\frac{6}{18}$

b $\frac{2}{5}$ $\frac{1}{2}$ $\frac{1}{3}$

$\frac{12}{30}$ $\frac{15}{30}$ $\frac{10}{30}$

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

$\frac{18}{24}$ $\frac{16}{24}$ $\frac{12}{24}$

d $\frac{3}{4}$ $\frac{3}{6}$ $\frac{3}{8}$

$\frac{18}{24}$ $\frac{12}{24}$ $\frac{9}{24}$

4a $\frac{3}{8}$ $\frac{2}{4}$ $\frac{5}{6}$

$\frac{9}{24}$ $\frac{12}{24}$ $\frac{20}{24}$

b $\frac{4}{7}$ $\frac{1}{2}$ $\frac{11}{14}$

$\frac{8}{14}$ $\frac{7}{14}$ $\frac{11}{14}$

c $\frac{1}{3}$ $\frac{5}{8}$ $\frac{4}{6}$

$\frac{8}{24}$ $\frac{15}{24}$ $\frac{16}{24}$

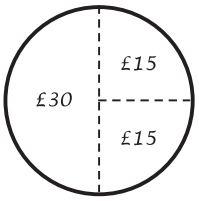
d $\frac{3}{4}$ $\frac{2}{3}$ $\frac{1}{2}$

$\frac{9}{12}$ $\frac{8}{12}$ $\frac{6}{12}$

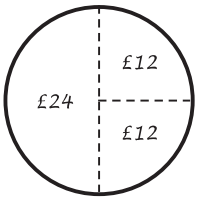
5 Answers will vary.

Page 10

What to do



£60



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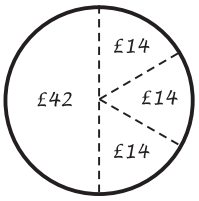


£84

Page 11

a 20 mini chocolate bars and 4 Chuppa Chups.

b 12 gob stoppers. He missed out on 6.

c 2 Chuppa Chups.

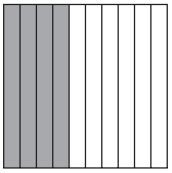
d 12 Wizz Fizzes + 2 suckers + 30 chocolate bars = 44; 44 items

e $\frac{2}{5} + \frac{3}{5} = \frac{5}{5} = 1$ whole

f $1 - \frac{1}{4} = \frac{3}{4}$; $12 - 3 = 9$

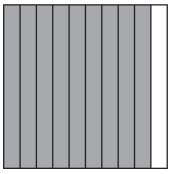
Page 12

1a



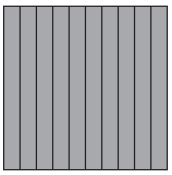
0.4

b



0.9

c



1.0

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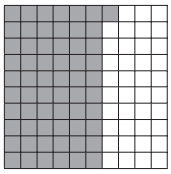
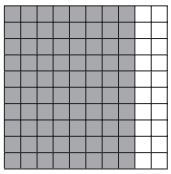
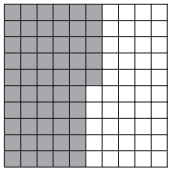
Page 12

2a  0.61

b  0.80

c  0.55

3a 0.674
b 0.432
c 0.493
d 0.589
e 0.029
f 0.007
g 0.004
h 1.000

Page 13

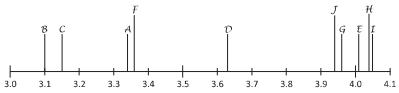
1

	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
a 5.892						✓	
b 13.05						✓	
c 763.22		✓					
d 89.021				✓			
e 100.001							✓
f 560.45					✓		
g 312.956			✓				

2a 4.122
b 111.65
c 300.042
d 4,000.12
e 12.013
f 213.43

3a 2.7
b 0.48
c 9.0
d 11.12
e 1.67

Page 14

1 

2a Double Or Nothing Danielle
b Did You See That One Big-noter
c Lone Shooter and Double Or Nothing Danielle
d 0.6 m
e Answers will vary.

Page 15

1a 67.2
b 48.1
c 124.8
d 90.1
e 54.5
f 7.1

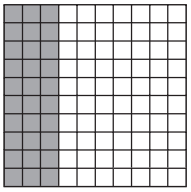
2a 58.13
b 70.35
c 45.01
d 78.13
e 89.04
f 36.23

3 Answers will vary.

Pages 16–17

1a

$\frac{60}{100}$	0.6	60%

b 

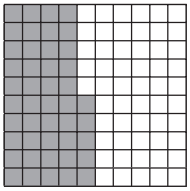
$\frac{30}{100}$	0.3	30%

c

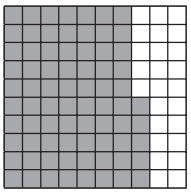
$\frac{90}{100}$	0.9	90%

d

$\frac{25}{100}$	0.25	25%

e 

$\frac{45}{100}$	0.45	45%

f 

$\frac{75}{100}$	0.75	75%

g

$\frac{89}{100}$	0.89	89%

4a, b

Choice 1		
Hamburger	£4.95	£5
Can of drink	£2.25	£2
Large chips	£1.15	£1
	Total	£8

Choice 2		
Jacket potato with cheese	£7.95	£8
Hot chocolate	£0.95	£1
Salad	£2.98	£3
	Total	£12

Choice 3		
Salad roll	£5.15	£5
Juice	£2.25	£2
Biscuit	£1.95	£2
	Total	£9

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