

Pages 4–5

- a) $\frac{1}{3}$ b) $\frac{2}{4}$ or $\frac{1}{2}$ c) $\frac{2}{6}$ or $\frac{1}{3}$

d) $\frac{4}{8}$ or $\frac{1}{2}$ e) $\frac{3}{6}$ or $\frac{1}{2}$
- a) $\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10}, \frac{6}{12}$ b) $\frac{2}{8}, \frac{3}{12}$ c) $\frac{6}{8}, \frac{9}{12}$ d) $\frac{2}{10}$
- a) $\frac{1}{5}$ b) $\frac{2}{10}$ c) $\frac{4}{12}$
- $\frac{1}{6}, \frac{1}{5}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{3}{4}$
- a) $\frac{2}{3} < \frac{9}{12}$ b) $\frac{3}{8} < \frac{2}{4}$ c) $\frac{5}{10} > \frac{2}{5}$
- $\frac{12}{24}$

Pages 6–7

- a) $\frac{1}{2}$ b) $\frac{1}{3}$ c) $\frac{1}{4}$
- a) $\frac{2}{4}$ b) $\frac{2}{8}$

c) $\frac{3}{6}$ d) $\frac{4}{12}$
- a) $\frac{3}{4}$ b) $\frac{4}{5}$ c) $\frac{2}{3}$
- a) $\frac{1}{2}$ b) $\frac{1}{6}$

c) $\frac{1}{4}$ d) $\frac{1}{3}$
- a) $\frac{2}{7}$ b) $\frac{2}{3}$ c) $\frac{2}{5}$
- $\frac{6}{10}$
- Class B; $\frac{1}{2}$ passed (Class A only $\frac{1}{3}$ passed).

Pages 8–9

- a) 3 b) 7 c) 4
- a) 7 b) 8 c) 6
- a) 6 b) 12 c) 8
- a) 3 b) 6 c) 5
- 3
- 9
- a) 2 squares shaded blue

b) 3 squares shaded green

c) 6 squares shaded red

d) $\frac{1}{12}$
- a) 12 b) 13 c) 15
- a) 6 white, 3 black, 8 brown, 4 horns, 3 spotted

b) $\frac{1}{8}$

Pages 10–11

- a) 9 b) 12 c) 18
- a) 6 b) 12 c) 8
- a) 15 b) 9 c) 27
- a) $\frac{5}{9}$ b) $\frac{4}{9}$
- 16 red and 12 blue
- No, $\frac{5}{6}$ of 48 is 40.
- 5
- Petra (she has 9 buttons)
- $\frac{3}{8}$

Pages 12–13

- a) $\frac{2}{3}$ b) $\frac{3}{4}$

c) $\frac{5}{8}$ d) $\frac{3}{6}$ ($\frac{1}{2}$)
- a) $\frac{5}{8}$ b) $\frac{7}{12}$ c) $\frac{11}{15}$
- a) $1\frac{7}{8}$ b) $2\frac{4}{5}$ c) $1\frac{5}{6}$
- $5\frac{4}{5}$
- a) $1\frac{2}{5} + \frac{2}{5} = 1\frac{4}{5}$

b) $\frac{1}{6} + 1\frac{4}{6} = 1\frac{5}{6}$

c) $1\frac{4}{8} + 1\frac{3}{8} = 2\frac{7}{8}$
- $\frac{11}{8}$ or $1\frac{3}{8}$

Pages 14–15

- a) $\frac{1}{3}$ b) $\frac{1}{6}$ c) $\frac{1}{4}$

d) $\frac{3}{8}$ e) $\frac{3}{12}$ f) $\frac{3}{5}$
- a) $\frac{3}{14}$ b) $\frac{5}{8}$ c) $\frac{3}{16}$
- a) $2\frac{3}{8}$ b) $\frac{4}{9}$ c) $2\frac{3}{10}$
- $\frac{1}{6}$
- a) $1\frac{3}{4} - \frac{2}{4} = 1\frac{1}{4}$

b) $1\frac{5}{7} - \frac{3}{7} = 1\frac{2}{7}$

c) $1\frac{9}{12} - 1\frac{5}{12} = \frac{4}{12}$
- yes, $\frac{1}{5}$

Page 16

- a) $\frac{3}{5} > \frac{7}{15}$ b) $\frac{8}{12} = \frac{2}{3}$ c) $\frac{4}{10} < \frac{3}{5}$
- a) $\frac{2}{5}$ b) $\frac{4}{7}$ c) $\frac{2}{3}$
- a) 6 b) 11 c) 23
- a) 12 b) 18 c) 28
- a) $\frac{10}{12}$ or $\frac{5}{6}$ b) $\frac{7}{9}$ c) $\frac{19}{20}$
- a) $\frac{4}{10}$ or $\frac{2}{5}$ b) $\frac{3}{15}$ or $\frac{1}{5}$ c) $\frac{1}{12}$
- $\frac{1}{10}, \frac{2}{10}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}$
- ~~$\frac{7}{14}, \frac{12}{18}, \frac{1}{2}, \frac{9}{15}, \frac{12}{20}, \frac{2}{3}, \frac{3}{5}$~~
- a) 4 b) 16
- a) $1\frac{4}{9} + \frac{3}{9} = 1\frac{7}{9}$

b) $1\frac{8}{12} - 1\frac{5}{12} = \frac{3}{12}$

c) $1\frac{2}{11} + 1\frac{6}{11} = 2\frac{8}{11}$

d) $1\frac{8}{9} - \frac{4}{9} = 1\frac{4}{9}$

Page 17

- $\frac{6}{9}$
 - $\frac{6}{10}$
 - $\frac{10}{12}$
- $\frac{2}{3}$
 - $\frac{4}{5}$
 - $\frac{3}{5}$
- 16
 - 22
 - 32
- $\frac{3}{6} = \frac{1}{2}$
 - $\frac{4}{10} = \frac{2}{5}$
 - $\frac{3}{8}$
 - $\frac{3}{5}$
- $\frac{6}{7}$
 - $\frac{5}{12}$
 - $\frac{14}{20} = \frac{7}{10}$
 - $\frac{9}{19}$
- $\frac{3}{5}$
 - $\frac{9}{12}$
 - $\frac{5}{6}$
 - $\frac{9}{15}$
 - $\frac{2}{3}$
 - $\frac{10}{15}$
 - $\frac{3}{4}$
 - $\frac{15}{18}$
- 8 circles ringed
- $\frac{3}{5}$
 - $\frac{5}{6}$
 - $\frac{4}{5}$
- $1\frac{11}{15}$
 - $\frac{3}{26}$
 - $\frac{24}{35}$
 - $\frac{59}{78}$
- 4 circles shaded

Pages 18–19

- $\frac{6}{100}, \frac{7}{100}, \frac{8}{100}$
 - $\frac{28}{100}, \frac{29}{100}, \frac{30}{100}$
 - $\frac{72}{100}, \frac{71}{100}, \frac{70}{100}$
- $\frac{36}{100}, \frac{37}{100}, \frac{38}{100}, \frac{39}{100}, \frac{40}{100}$
 - $\frac{51}{100}, \frac{50}{100}, \frac{49}{100}, \frac{48}{100}, \frac{47}{100}$
 - $\frac{89}{100}, \frac{90}{100}, \frac{91}{100}, \frac{92}{100}, \frac{93}{100}$
- $\frac{29}{100}$
 - $\frac{32}{100}$
 - $\frac{36}{100}$
 - $\frac{38}{100}$
- $\frac{72}{100}$
 - $\frac{75}{100}$
 - $\frac{77}{100}$
 - $\frac{80}{100}$
- $\frac{35}{100}, \frac{75}{100}, 1\frac{5}{100}, 1\frac{23}{100}, 1\frac{45}{100}$
- $1\frac{1}{100}$
 - $1\frac{4}{100}$
 - $1\frac{6}{100}$
 - $1\frac{9}{100}$
- $\frac{3}{100}, \frac{2}{10}, \frac{5}{10}, \frac{7}{10}, \frac{75}{100}$

Pages 20–21

- 5 units
 - 5 tenths
 - 5 hundredths
 - 5 tenths
- 7.42
 - 6.07
 - 4.3
- three point five one
 - two point zero eight
 - nine point four
- 1.12
 - 1.14
 - 1.17
 - 1.19

- $1.75, 0.3, \frac{7}{100}, 1\frac{75}{100}, 0.8, 0.07, \frac{3}{10}, \frac{80}{100}$
- $0.35, 0.75, 1.05, 1.25, 1.45$
- 1.18
 - 1.21
 - 1.24
 - 1.28
- 0.02
 - 0.05
 - 0.08
 - 0.12

Pages 22–23

- 0.3
 - 0.7
 - 0.4
- 0.09
 - 0.02
 - 0.05
- $\frac{5}{100}$
 - $\frac{97}{100}$
 - $1\frac{35}{100}$
- 0.23
 - 0.54
 - 0.98
- 0.1
 - 0.3
 - 0.6
 - 0.9
- $0.01, \frac{3}{4}, \frac{5}{10}, 0.25, 0.75, 0.05, \frac{1}{4}, \frac{1}{100}, \frac{5}{100}, 0.5$

- $\frac{2}{10}, 0.3, \frac{4}{10}, \frac{5}{10}, 0.9$
- $0.05, 0.06, \frac{7}{100}, \frac{8}{100}, \frac{9}{100}$
- 0.53
 - 0.56
 - 0.59
 - 0.63

Pages 24–25

- 0.7
 - 0.4
 - 0.2
- 0.05
 - 0.03
 - 0.08
- 0.7
 - 10
 - 36
- 2.3
 - 4.5
 - 1.6
- 0.7 km
- 0.3 m
- 0.6 m
- 6.7
 - 4.5
 - 2.9
- 0.05 m
 - 0.08 m
 - 0.02 m
- 0.03
 - 10
 - 4.5

Pages 26–27

- 0.08
 - 0.03
 - 0.05
- 0.46
 - 0.38
 - 0.51
- 0.24
 - 0.07
 - 0.99
- $32 \div 100 = 0.32$
 - $2 \div 100 = 0.02$
 - $56 \div 100 = 0.56$
- 0.08 m
- 0.26 miles
- 0.65 litres
- 0.3 m and 0.03 m
- 0.78 cm
- 0.25 m

Page 28

- $\frac{37}{100}, \frac{38}{100}, \frac{39}{100}$
 - $\frac{70}{100}, \frac{69}{100}, \frac{68}{100}$
- 2.5 litres
- 0.05
 - 0.23
 - 0.14
 - 0.99
- $32 \div 100 = 0.32$
 - $65 \div 100 = 0.65$
 - $3 \div 100 = 0.03$
- 0.5
 - 0.03
 - 0.9
 - 0.45
- 26.10
 - 26.13
 - 26.16
 - 26.17
- 0.27 m
- $45 \div 10 = 4.5$
 - $23 \div 10 = 2.3$
 - $69 \div 10 = 6.9$
- 0.06
- $\frac{5}{10} = \frac{1}{2}$
 - $\frac{75}{100} = \frac{3}{4}$
 - $\frac{25}{100} = \frac{1}{4}$

Page 29

- $\frac{40}{100}$
 - $\frac{70}{100}$
 - $1\frac{30}{100}$
 - $1\frac{60}{100}$
- 10
 - 6
 - 9.9
- 0.66
 - 0.69
 - 0.72
 - 0.77
- 0.8
 - 0.2
 - 0.5
- $\frac{5}{100} (\frac{1}{20})$
 - $\frac{65}{100} (\frac{13}{20})$
 - $\frac{4}{10} (\frac{2}{5})$
- $34 \div 10 = 3.4$
 - $7 \div 100 = 0.07$
 - $56 \div 100 = 0.56$
- 0.31
 - 0.34
 - 0.37
 - 0.42
- $\frac{31}{100}$
 - $\frac{34}{100}$
 - $\frac{37}{100}$
 - $\frac{42}{100}$
- $\frac{30}{100}, \frac{31}{100}, \frac{32}{100}$
 - 0.05, 0.04, 0.03
 - 0.90, 0.89, 0.88
- $\frac{85}{100}$ or $\frac{17}{20}$
 - $\frac{8}{10}$ or $\frac{80}{100}$
 - $\frac{8}{100}$ or $\frac{4}{50}$ or $\frac{2}{25}$

Pages 30–31

- 1
 - 2
- 4
 - 3
- | | |
|---------|-----------|
| Decimal | Rounds to |
| 3.1 | 5 |
| 4.2 | 3 |
| 4.8 | 6 |
| 2.1 | 4 |
| 5.5 | 2 |

- 36
 - 136
 - 70
 - 170
 - 22
 - 27

Number	Rounded to the nearest whole number
14.3	14
27.6	28
13.2	13
127.7	128
58.5	59

- Any number from 5.5 to 6.4 inclusive.

Pages 32–33

- 4.75
 - 1.27
 - 7.67
- 0.31 0.33 0.34 0.36 0.38
- £1.55, £1.56, £1.65, £3.55, £3.56
- 3 tenths
 - 3 hundredths
 - 3 tens
- 3.01
 - 1.56
 - 9.98
- 3.07
 - 3.09
 - 3.12
 - 3.13
- 0.12 0.29 0.37 0.45 0.63 0.78
- 1.33 1.53 3.13 3.15 3.35 33.51
- Javid
- $67.43 > 67.42$
 - $32.15 < 32.25$
 - $45.37 > 45.27$
- false
 - true
 - true

Pages 34–35

- $\frac{1}{2}$
 - $\frac{3}{4}$
 - $\frac{1}{4}$
- 0.75
 - 0.25
 - 0.5
- | | |
|-----------------|-----------------|
| 0.01 | $\frac{3}{4}$ |
| $\frac{5}{10}$ | 0.25 |
| 0.75 | 0.05 |
| $\frac{1}{4}$ | $\frac{1}{100}$ |
| $\frac{5}{100}$ | 0.5 |
- 0.5
- 0.75 m
- 0.25
- $\frac{5}{100} = 0.05, \frac{1}{10} = 0.1, \frac{1}{4} = 0.25, \frac{5}{10} = 0.5, \frac{3}{4} = 0.75$

Pages 36–37

- B and D have $\frac{1}{3}$ shaded
- Any 4 squares shaded
- $\frac{1}{3} = \frac{4}{12}$
 - $\frac{1}{4} = \frac{2}{8}$
 - $\frac{2}{5} = \frac{4}{10}$
- 10 balls
- $\frac{6}{9} = \frac{2}{3}$
- $\frac{1}{3}, \frac{2}{5}, \frac{3}{8}, \frac{5}{12}$ or equivalents

7. $\frac{1}{3}$ of 150 is 50
 $\frac{1}{2}$ of 90 is 45
 $\frac{1}{5}$ of 150 is 30
 $\frac{1}{4}$ of 160 is 40

8. a) $\frac{8}{9}$ b) $\frac{3}{12} = \frac{1}{4}$
c) $\frac{13}{16}$ d) $\frac{6}{15} = \frac{2}{5}$

9. 75
10. $\frac{6}{14} = \frac{3}{7} = \frac{15}{35}$

11. 24
12. a) $\frac{1}{5}$ b) $\frac{2}{5}$ c) $\frac{2}{5}$

13. £3.10 or £3 and 10p

14. 12

15. $\frac{3}{5}$

Pages 38–39

1. a) 0.56, 0.57, 0.58, **0.59, 0.60, 0.61**
b) 0.83, 0.82, 0.81, **0.8, 0.79, 0.78**
c) 0.18, 0.19, **0.2, 0.21, 0.22, 0.23**

2. a) 0.2 b) 3.6 c) 1.8

3. a) 76 b) 20 c) 38

4. a) 0.3 b) 0.6 c) 0.5
d) 0.2 e) 0.4

5. a) 0.07 b) 0.25 c) 0.2

6. a) 4.9 b) 5.5
c) 5.8 d) 6.1

7. a) 0.3 b) 0.09 c) 0.7
d) 0.26 e) 0.03

8. a) $\frac{3}{100}$ b) $\frac{2}{100} (\frac{1}{50})$ c) $\frac{9}{10}$
d) $\frac{34}{100} (\frac{17}{50})$ e) $\frac{75}{100} (\frac{3}{4})$

9. 6 bricks shaded

10. $\frac{6}{10}$ 0.7
0.75 0.09
 $\frac{7}{10}$ $\frac{3}{4}$
 $\frac{9}{100}$ 0.06

11. a) 0.6 2.3 2.6 3.2 6.2
b) 14.26 14.60 41.61 14.62

12. a) 0.45 b) 0.16 c) 0.03

13. a) 2.99 b) 3.05
c) 3.08 d) 3.11

14. a) 4

15. 5 pieces of fudge

Page 40

1. a) 3.54 b) 0.30 c) 7.32

2. a) $1.00 = \frac{1}{1}$ b) $0.25 = \frac{1}{4}$
c) $0.5 = \frac{1}{2}$ d) $0.75 = \frac{3}{4}$

3. £0.04 £0.34 £0.43 £3.45 £4.53

4. a) 3 b) 77 c) 15

5. a) 32p b) 165p c) 5p

6. 0.10 0.25 $\frac{1}{2}$ $\frac{3}{4}$ 0.90

7. a) 0.45 m b) 0.5 m c) 0.93 m

8. Any number from 4.5 to 5.4 inclusive

9. 0.2 litres

10. a) 8 b) 32
c) 177 d) 100

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1. a) 6 b) 6 c) 3

2. a) 4.6 b) 7.3 c) 8.7

3. 3.4, 3.7, 3.9, 7.3, 7.5

4. £2.45, £2.54, £ 4.20, £4.25, £5.42

5. $\frac{1}{2} = 0.5$, $\frac{1}{4} = 0.25$, $\frac{3}{4} = 0.75$, $\frac{4}{4} = 1.0$

6. £1.50

7. 1.5 m

8. 0.75 m = 75 cm, 0.7 kg = 700 g, 0.75 km = 750 m

9. 0.3 m, 0.33 cm, 35 cm, 300 cm, 350 cm

10. 25p, 50p, £0.52, £1.25, 152p

Pages 42–43

1. $\frac{8}{12}$ and $\frac{2}{3}$

$\frac{9}{12}$ and $\frac{3}{4}$

$1\frac{2}{10}$ and $1\frac{1}{5}$

2. a) False b) True c) True

3. $\frac{2}{4}$ and $\frac{4}{8}$

4. 0.02, $\frac{7}{100}$, 0.25, $\frac{70}{100}$, $\frac{3}{4}$

5. 0.23 km

6. 0.96 litres

7. 64

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

9. 0.3 m

10. a) $\frac{7}{15}$ red and $\frac{8}{15}$ blue

b) 17

c) $\frac{10}{17}$

11. $\frac{5}{12}$

12. 0.88 m

13. Millie 3.76 km

14. 4

15. £3.20

16. 8

17. 2.5 m

18. 0.25 km or 250 m

19. Freya 0.270 kg

20. 3.45 km, 3.54 km, 4.53 km, 5.34 km, 5.43 km