Study & Master

Maths Online

Solutions **Grade 5**

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Worksheet 1: Counting (1)

Activity 1

1. 2 824; 2 834; 2 844; 2 854; 2 864
2. 4 652; 4 642; 4 632; 4 622; 4 612
3. 8 600; 8 700; 8 800; 8 900; 9 000
4. 1 650; 1 700; 1 750; 1 800; 1 850
5. 500; 625; 750; 875; 1 000

Activity 2

1. 4 891; 4 901; 4 911; 4 921; 4 932; 4 941; 4 951; 4 961; 4 971; 4 981; 4 991; 5 001
2. 8 250; 8 200; 8 150; 8 100; 8 050; 8 000; 7 950; 7 900
3. 720; 1 220; 1 720; 2 220; 2 720; 3 220; 3 720; 4 220; 4 720; 5 220
4. 8 525; 8 550; 8 575; 8 600; 8 625; 8 650; 8 675; 8 700; 8 725; 8 750; 8 775; 8 800; 8 825; 8 850; 8 875; 8 900; 8 925; 8 950; 8 975; 9 000; 9 025; 9 050

Activity 3

3 000 + 1 500 + 750 + 400 + 75 = 5 725 points

Worksheet 2: Counting (2)

Activity 1

600 + 150 + 5 = 755 marbles

Activity 2

400 + 500 + 150 + 100 = 1 150

Activity 3

165; 180; 195; 210; 230; 250; 270; 290; 340; 390; 465

Worksheet 3: Place value (1)

Activity 1

1. 1 124
2. 1 485
3. 2 231

Activity 2

1. Learners' own work
2. a) 3 000 | 80 | 4

   b) 10 000 | 5 000 | 900 | 70 | 8

   c) 60 000 | 3 000 | 900 | 70 | 8

   d) 100 000 | 10 000 | 6 000 | 900 | 70 | 8

   e) 600 | 10

   f) 200 000 | 40 000 | 7 000 | 800 | 30 | 6

   g) 80 000 | 5 000 | 200 | 4

   h) 30 000 | 9 000 | 200 | 50

Worksheet 4: Place value (2)

Activity 1

1. 8 302
2. 52 507
3. 84 663
4. 29 871
5. 174 108

Activity 2

1. 1 000 + 80 + 9
2. 9 000 + 800 + 60 + 6
3. 10 000 + 400 + 90 + 2
4. 100 000 + 20 000 + 400 + 90 + 2
5. 700 000 + 60 000 + 9 000 + 400 + 50 + 4
6. 400 000 + 50 000 + 6 000 + 300 + 80 + 7

Activity 3

1. 5
2. 620 051
3. 9 000
4. 40; 400
5. 5

Worksheet 5: Place value (3)

Activity 1

1. 90 000 + 8 000 + 700 + 50 + 2; ninety-eight thousand seven hundred and fifty-two
2. 200 000 + 1 000 + 600 + 30 + 5; two hundred and one thousand six hundred and thirty-five
3. 80 000 + 5 000 + 400 + 70 + 5; eighty-five thousand four hundred and seventy-five
4. 100 000 + 50 000 + 9 000 + 800 + 70 + 4; one hundred and fifty-nine thousand eight hundred and seventy four
5. 900 000 + 20 000 + 4 000 + 300 + 20 + 1; nine hundred and twenty-four thousand three hundred and twenty one

Activity 2

1. 27 thousands + 5 hundreds + 8 tens + 2 units
2. 38 thousands + 2 hundreds + 1 ten + 5 units
3. 135 thousands + 6 hundreds + 3 tens + 4 units
4. 845 thousands + 0 hundreds + 1 ten + 8 units

Activity 3

1. 1 327
2. 92 852
3. 56 510
4. 8 349
5. 100 713
6. 503 682
7. 319 058

Worksheet 6: Numbers in words and numerals

Activity 1

two hundred and five thousand six hundred and fifty-three; 205 653

ninety-one thousand six hundred and thirty-two; 91 632

sixteen thousand eight hundred and eighty-nine; 16 825

twenty thousand five hundred and eighty-nine; 20 000 + 500 + 80 + 9

three thousand six hundred and fifty-four; 3 654

500 000 + 50 000 + 2 000 + 300 + 20 + 1; 552 321

7 524; 7 000 + 500 + 20 + 4

eighty-five thousand six hundred and ninety-eight; 85 698

Activity 2

1. eight thousand and twenty
2. five thousand two hundred and fifty-six
3. nineteen thousand six hundred and twenty-seven
4. sixty-one thousand five hundred and eighty-nine
5. one hundred and twenty-one thousand four hundred and eighty-five

Activity 3

1. 252 506 2. 96 495 3. 29 102

Worksheet 7: Comparing and ordering numbers (1)

Activity 1

1. 2 962; 5 123; 8 723; 9 240; 13 223; 23 821
2. 45 169; 65 469; 241 365; 465 324; 582 147; 963 147

Activity 2

1. 654 357; 654 159; 645 123; 596 565; 564 321; 465 195
2. 6 332; 6 302; 6 300; 6 032; 6 013; 6 003

Activity 3

1. 65 432; 56 432; 46 532; 36 542; 26 543 (are many more possible numbers)
2. 26 543; 36 542; 46 532; 56 432; 65 432
3. 65 432; 56 432; 46 532; 36 542; 26 543

Worksheet 8: Comparing and ordering numbers (2)

Activity 1

1. A: 4 872; B: 5 872; C: 8 872; D: 9 872
2. A: 4 950; B: 4 925; C: 4 875; D: 4 850
3. A: 9 352; B: 8 352; C: 7 352; D: 5 352
4. A: 255 240; B: 255 340; C: 255 640; D: 255 740

Activity 2

1. < 2. < 3. = 4. < 5. =

Extension Activity

198 315

Worksheet 9: Rounding to the nearest 5, 10, 100 and 1 000

Activity 1

1. 7 270 **2.** 9 475 **3.** 12 400

4. 63 000 **5.** 168 000

Activity 2

1.

4 533	4 530	4 500	5 000
3 042	3 040	3 000	3 000
3 482	3 480	3 500	3 000
5 895	5 900	5 900	6 000
5 109	5 110	5 100	5 000

Activity 3

1. R11 700 **2.** 58 000 people **3.** R235 000

Extension Activity

8 134

Worksheet 10: Multiples and factors

Activity 1

1. 42; 49 **2.** 75 **3.** 24; 36; 48

Activity 2

1. all numbers ending in an even number are multiples of 2

2. 14; 21; 28; 35; 42; 49; 56; 63; 84

3. 18; 27; 36; 45; 63; 72; 81; 99

4. 30; 35; 10; 80; 20; 45; 100; 25; 40

5. multiples of 4

6. prime numbers

Extension Activity

1. 12 m

2. 10

Worksheet 11: Factors

Activity 1

1. yes

2. 1; 2; 3; 4; 9; 12; 18; 36

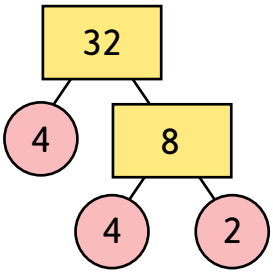
3. 12; 8; 4

4. yes; 7

5. 1; 2; 4; 8

Activity 2

1.



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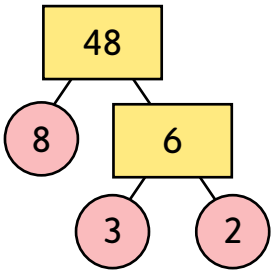
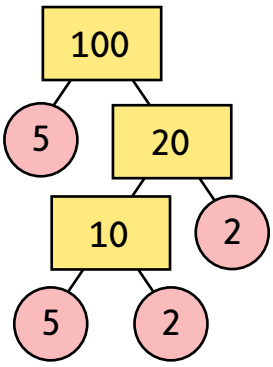


Extension

3.



4. true; 1, 2, 3, 4, 6, 12 are all factors of 72

Worksheet 12: Odd and even numbers

Activity 1

1. 613; 565; 433; 339

2. 322; 988; 422; 890

Activity 2

1. 963 **2.** 726; 762; 276; 672 **3.** 385

4. 552; 554; 556; 558; 560; 562; 564; 566; 568; 570; 572; 574; 576; 578

5. 331; 333; 335; 337; 339; 341; 343; 345; 347; 349; 351; 353; 355; 357; 359

Extension Activity

1. 100; 204; 256
2. They can be divided by 2
3. 204 is an even number

Worksheet 13: Addition (1)

Activity 1

1. 35 900
2. 56 100
3. 49 000
4. 62 500
5. 69 900

Activity 2

1. 563
2. 7 802
3. 6 284
4. 17 165
5. 141 153
6. 93 177

Activity 3

1. 7 616
2. 8 212
3. 83 326
4. 80 443

Activity 4

1. 27 513
2. 28 525 people
3. R78 900; R78 915

Worksheet 14: Addition (2)

Activity 1

1. 1 546
2. 11 808
3. 15 027
4. 97 673
5. 60 418
6. 79 989

Activity 2

1. 141 153
2. 11 523
3. 15 253
4. 69 080
5. 44 937
6. 16 477

Activity 3

1. 103 091 people
2. R48 284
3. 21 011 km
4. 20 918 bags
5. R112 368

Worksheet 15: Addition (3)

Activity 1

1. 6 833
2. 42 226
3. 33 126
4. 11 284
5. 143 921
6. 82 441

Activity 2

1. 8 886
2. 39 459
3. 9 514
4. 639
5. 11 055
6. 17 243

Activity 3

1. 17 386 flowers
2. 47 539 books
3. 50 774 spectators
4. 68 776 marbles
5. 34 418 points

Worksheet 16: Subtraction (1)

Activity 1

1. 1 422
2. 11 111
3. 2 131
4. 6 013
5. 24 363
6. 16 551

Activity 2

1. 4 809
2. 3 532
3. 32 741
4. 28 571

Activity 3

1. Choc-a-Lot: 2 234; Caramel Treat: 3 491; Wispy Wafer: 3 024
2. R5 318
3. R8 574

Worksheet 17: Subtraction (2)

Activity 1

1. 8 927
2. 2 086
3. 63 534
4. 31 328
5. 91 815
6. 1 331

Activity 2

1. D
2. F
3. B
4. G
5. C
6. I
7. A
8. J
9. E
10. H

Extension Activity

2 160	2 255	1 462
1 261	1 959	2 657
2 456	1 663	1758

2 563	3 068	2 967
3 270	2 866	2 462
2 765	2 664	3 169

Worksheet 18: Subtraction (3)

Activity 1

1. 18 215
2. 4 017
3. 1 389
4. 53 693
5. 11 923

Activity 2

1. 74 292
2. 34 238
3. 11 529
4. 23 195
5. 87 416
6. 3 818

Activity 3

1. 3 213 more
2. 21 356 kg
3. 1 680 km

Extension Activity

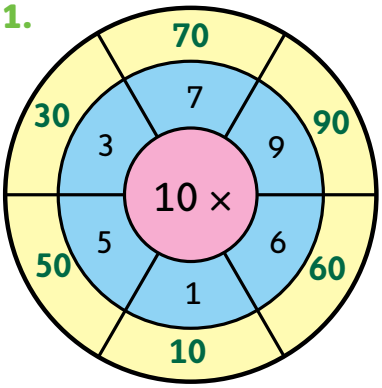
Month 1: 7208 Choc-Creams

Month 2: 5 976 Caramel Crunch

Worksheet 19: Multiplication facts

Activity 1

1.



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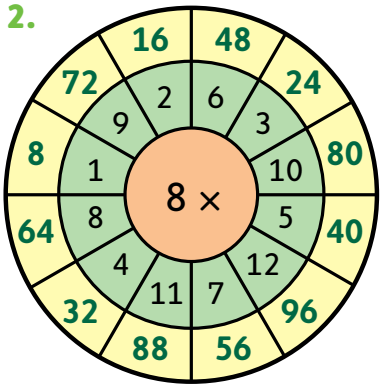

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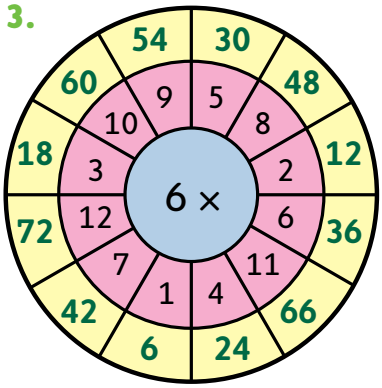


Activity 2

1. $6 \times 10 = 60$; $60 \times 10 = 600$; $600 \times 10 = 6\,000$; $6\,000 \times 10 = 60\,000$
2. $6 \times 100 = 600$; $19 \times 100 = 1\,900$; $81 \times 100 = 8\,100$; $70 \times 100 = 7\,000$
3. $4 \times 1\,000 = 4\,000$; $40 \times 1\,000 = 40\,000$; $400 \times 1\,000 = 400\,000$; $4\,000 \times 1\,000 = 4\,000\,000$
4. $50 \times 80 = 4\,000$; $80 \times 80 = 6\,400$; $300 \times 80 = 24\,000$; $600 \times 80 = 48\,000$
5. $2 \times 25 = 50$; $4 \times 25 = 100$; $8 \times 25 = 200$; $16 \times 25 = 400$
6. $4 \times 15 = 60$; $6 \times 15 = 90$; $7 \times 15 = 105$; $13 \times 15 = 195$

Activity 3

1.	20	2.	66	3.	27
4.	40	5.	132	6.	57
7.	70	8.	1 320	9.	540

Worksheet 20: Multiplication (1)

Activity 1

Nomsa is incorrect: 24×56

$= (20 + 4) \times 56$

$= (20 \times 56) + (4 \times 56)$

$= 1\,120 + 224$

$= 1\,344$

Activity 2

1. 2 790
2. 666
3. 1 968
4. 29 790
5. 18 904
6. 16 235

Activity 3

1. 1 170 slices
2. 288 km
3. 616 chairs
4. 4 725
5. 5 292 pancakes

Worksheet 21: Multiplication (2)

Activity 1

$51 \times 27 = (51 \times 3) \times 3 \times 3 = (153 \times 3) \times 3 = 459 \times 3 = (400 + 50 + 9) \times 3 = 1\,377$

Activity 2

1. 400
2. 6 848
3. 28 896
4. 9 216
5. 2 960
6. 1 728

Activity 3

1. 47 763
2. 2 128 cupcakes
3. R3 024
4. 432 sweets
5. 1 218 calories

Worksheet 22: Multiplication (3)

1. 21 12 15
   42 24 30
   49 48 45
   98 96 450
2. 240 480 280
   270 960 450
   4 500 1 600 1 000
   3 000 8 000 3 600
   400 40 000 2 000

3.

$24 = 8 \times 3$	$64 = 32 \times 2$
$24 = 6 \times 4$	$64 = 16 \times 4$
$24 = 12 \times 2$	$64 = 8 \times 8$
$36 = 12 \times 3$	$96 = 8 \times 12$
$36 = 6 \times 6$	$112 = 7 \times 16$
$36 = 18 \times 2$	$120 = 15 \times 8$
$48 = 16 \times 3$	$128 = 32 \times 4$
$48 = 8 \times 6$	$128 = 64 \times 2$
$56 = 7 \times 8$	$128 = 8 \times 16$

4.

$4 \times 5 = 20$	$4 \times 10 = 40$	$4 \times 15 = 60$
$14 \times 5 = 70$	$140 \times 10 = 1\,400$	$140 \times 15 = 2\,100$

Worksheet 23: Doubling and halving

Activity 1

1. 60 **2.** 240 **3.** 183

4. 376 **5.** 208 **6.** 198

7. 423 **8.** 668 **9.** 2 282

10. 1 234

Activity 2

1. a) $24 \times 2 = 48$, then $24 \times 4 = 96$ and $24 \times 8 = 192$

b) $96 \times 2 = 192$, then $96 \times 4 = 384$ and $96 \times 8 = 768$

c) $196 \times 2 = 392$, then $196 \times 4 = 784$ and $196 \times 8 = 1\,568$

2. a) 592 **b)** 2 000 **c)** 2 928

Extension

3. a) 1 184 **b)** 2 000 **c)** 8 784

Activity 3

1. 32; 72; 256; 728

2. 250; 300; 700; 625; 460

3. 192; 300; 2 800; 520; 1 152

4. 32; 48; 216; 248; 460

Worksheet 24: Division (1)

Activity 1

1. 60
2. 600
3. 30
4. 9
5. 30
6. 4
7. 5
8. 90
9. 7
10. 200
11. 300
12. 70

Activity 2

1. 5; 6; 12; 42; 45
2. 2; 12; 6; 24; 84
3. 40; 6; 128; 8; 3
4. 65; 85; 95; 105; 185
5. 40; 100; 70; 140; 120
6. 20; 50; 35; 70; 60

Worksheet 25: Division (2)

Activity 1

1. 5
2. 5
3. 2
4. 9
5. 11
6. 10

Activity 2

1. 75; 105; 125; 160; 245
2. 265; 480; 315; 395; 800 ÷ 2 = 400

Activity 3

1. 288 (**Note:** Question in Activity Book should read 288 ÷ 9)
2. 23
3. 130
4. 102
5. 51

Activity 4

1. 52 buttons
2. 63 trees

Worksheet 26: Division (3)

Activity 1

1. 18
2. 56
3. 31
4. 15 rem 5
5. 21 rem 1
6. 27 rem 17

Extension Activity

1. 14 glasses
2. 29 sandwiches
3. 432 cans
4. No, they need 20 buses.

Worksheet 27: Comparing two quantities (Ratio and rate)

Activity 1

1. 6 learners
2. 14 learners
3. ×2
4. 8 desks
5. 40 desks

Extension Activity

1. Learners' own work
2. a) 5
   b) 10 rounds
   c Jamal has 20 shells, and Juwai has 30 shells

Activity 2

1. 5 burgers
2. 21 burgers
3. Molly
4. 5 burgers on average
5. 4 burgers
6. No, he eats 8 burgers in 2 hours.

Worksheet 28: Ordering and comparing fractions (1)

Activity 1

1. $\frac{5}{9}$
2. $\frac{3}{5}$
3. $\frac{8}{9}$
4. $\frac{7}{8}$
5. $\frac{1}{8}$
6. $\frac{3}{4}$

Activity 2

1. A : $4\frac{2}{4}$; B : $5\frac{1}{4}$; C : $5\frac{2}{4}$; D : $5\frac{3}{4}$
2. A : 7; B : $7\frac{2}{8}$; C : $7\frac{3}{8}$; D : $7\frac{4}{8}$

Activity 3

1. $\frac{2}{6}; \frac{4}{10}; \frac{3}{4}; \frac{7}{9}; \frac{10}{12}; \frac{7}{8}$
2. $\frac{3}{4}; \frac{7}{9}; \frac{10}{12}$ or $\frac{7}{8}$
3. $\frac{7}{9}; \frac{3}{4}; \frac{4}{10}$ or $\frac{2}{6}$

Worksheet 29: Ordering and comparing fractions (2)

Activity 1

$4; 4\frac{1}{3}; 4\frac{2}{3}; 5; 5\frac{1}{3}; 5\frac{2}{3}; 6; 6\frac{1}{5}; 6\frac{2}{5}; 6\frac{3}{5}; 6\frac{4}{5}; 7; 7\frac{1}{2}; 8$

Activity 2

1. $\frac{1}{4}$
2. $\frac{1}{3}$
3. $\frac{2}{4}$
4. $\frac{9}{12}$
5. $\frac{2}{3}$
6. $\frac{7}{12}$
7. $\frac{3}{4}$
8. $\frac{10}{12}$

Activity 3

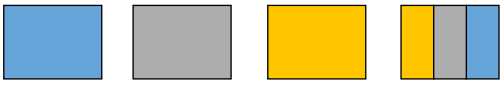
1. A : $12\frac{4}{12}$; B : $12\frac{7}{12}$; C : $13\frac{1}{12}$; D : $13\frac{4}{12}$; E : $13\frac{7}{12}$
2. A : $3\frac{1}{5}$; B : $3\frac{3}{5}$; C : $3\frac{4}{5}$; D : $4\frac{1}{5}$; E : $4\frac{2}{5}$

Worksheet 30: Fraction of a whole

Activity 1

1. 8 marbles
2. 2 marbles
3. $\frac{1}{4}$

Activity 2

1. 
2. a) $\frac{1}{8}$ b) 4 pieces
3. a) 18 sweets b) 54 sweets
4. 4 jelly beans
5. a) $\frac{1}{4}$ b) 5 lollipops

Worksheet 31: Equivalent fractions

Activity 1

1. $\frac{1}{4} = \frac{2}{8} = \frac{3}{12}$
2. $\frac{4}{8} = \frac{1}{2} = \frac{2}{4}$
3. $\frac{2}{6} = \frac{1}{3} = \frac{3}{9}$

Activity 2

1. $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{5}{10} = \frac{6}{12}$
2. $\frac{3}{9} = \frac{1}{3} = \frac{6}{18}$
3. $\frac{4}{6} = \frac{6}{9} = \frac{2}{3}$

Activity 3

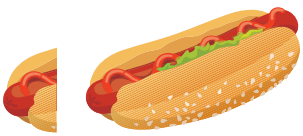
1. 6 thirds
2. 50 fifths
3. 32 quarters
4. 64 eighths
5. 72 sixths
6. 50 tenths

Extension Activity

1. $\frac{3}{5}$ will be longer
2. $\frac{6}{12} = \frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8}$
3. a) 3 pieces b) $\frac{1}{4}$

Worksheet 32: Mixed numbers

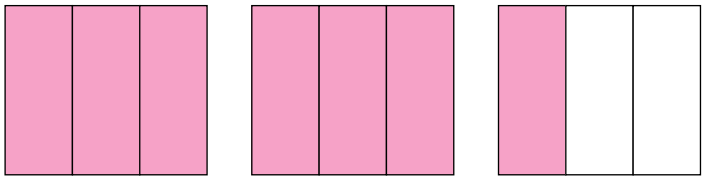
Activity 1

1. 
2. $1\frac{1}{4}$ each

Activity 2

1. $3\frac{2}{5}$
2. $1\frac{3}{12} = 1\frac{1}{4}$
3. $2\frac{3}{6} = 2\frac{1}{2}$
4. $2\frac{2}{4} = 2\frac{1}{2}$

Activity 3

1. 

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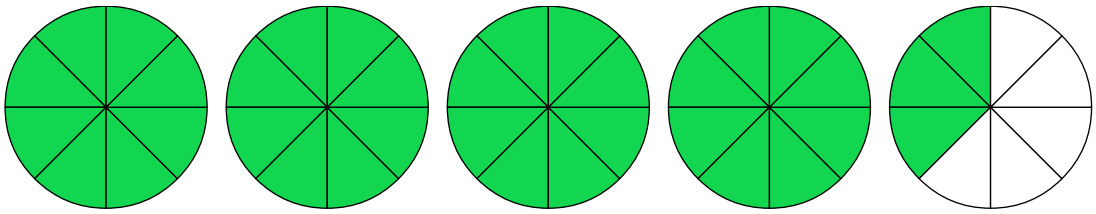

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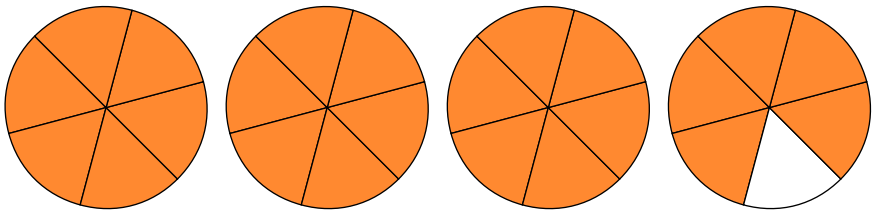

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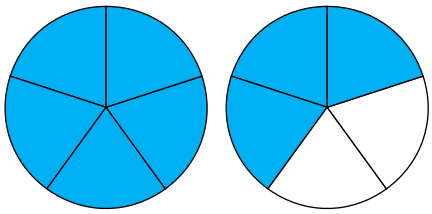


Activity 4

1. 19 **2.** 44 **3.** 14

4. $4\frac{1}{3}$ **5.** $\frac{11}{4}$

Activity 5

1. A : 3; B : $3\frac{1}{3}$; C : $4\frac{1}{3}$; D : $4\frac{2}{3}$

2. A : $1\frac{1}{5}$; B : $1\frac{3}{5}$; C : $1\frac{4}{5}$; D : $2\frac{1}{5}$

Activity 6

$\frac{5}{12}$; $\frac{5}{8}$; $\frac{7}{10}$; $\frac{5}{7}$; $\frac{3}{4}$

Worksheet 33: Addition and subtraction (1)

Activity 1

1. **a)** $\frac{7}{12}$ **b)** $\frac{5}{12}$

2. **a)** 8 cupcakes **b)** 20 cupcakes **c)** 4 cupcakes

3. **a)** $\frac{5}{6}$ **b)** $\frac{1}{6}$

4. $\frac{2}{9}$

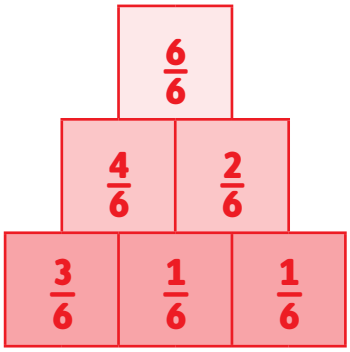
Activity 2

1. $\frac{3}{7}$ **2.** $3\frac{1}{8}$ **3.** $\frac{4}{8}$ **4.** $4\frac{1}{5}$

5. $\frac{4}{6}$ **6.** $\frac{3}{9}$ **7.** $\frac{4}{12}$ **8.** $13\frac{4}{6}$

Activity 3

1.



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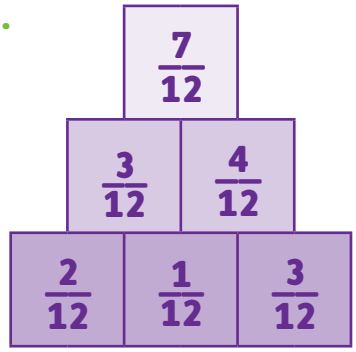
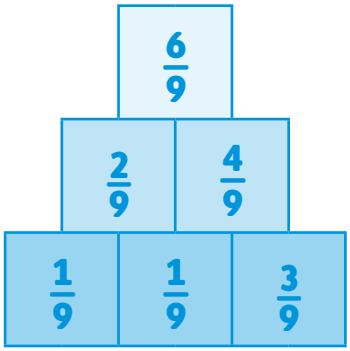
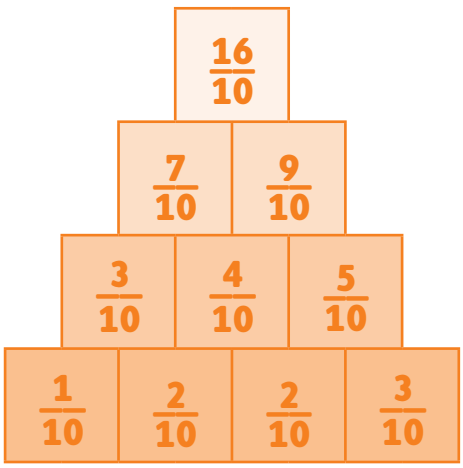


3.



Extension

4.



Worksheet 34: Addition and subtraction (2)

Activity 1

1. a) $\frac{2}{5}$
   b) 36 minutes
2. a) $\frac{7}{10}$
   b) R140
3. $\frac{22}{4} = \frac{11}{2} = 5\frac{1}{2}$

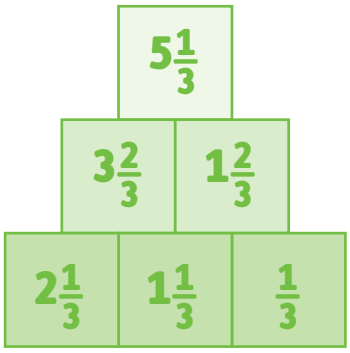
Activity 2

1. No, $5 - 3 + \frac{8}{9} - \frac{6}{9} = \frac{20}{9} = 2\frac{2}{9}$

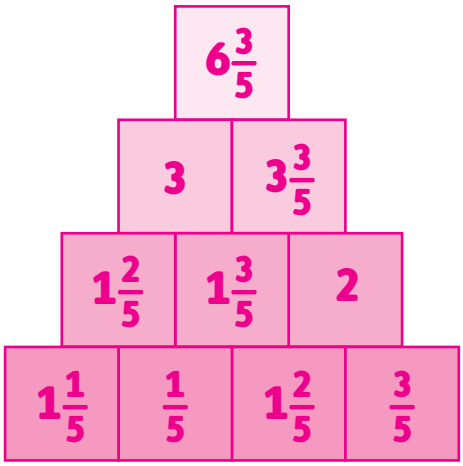
2. a) $\frac{17}{3} = 5\frac{2}{3}$ b) $\frac{11}{5} = 2\frac{1}{5}$ c) $\frac{69}{10} = 6\frac{9}{10}$ d) $\frac{7}{2} = 3\frac{1}{2}$

Activity 3

1.



2.



Extension Activity

1. 20 glasses
2. 5 small trays
3. 20 glasses
4. 2 large trays

Worksheet 35: Addition and subtraction (3)

Activity 1

1. $3\frac{7}{10}$ rows
2. 6 glasses
3. $\frac{3}{8}$ left

Activity 2

4; $4\frac{1}{3}$; $4\frac{2}{3}$; $5\frac{1}{3}$; 5; $5\frac{1}{4}$; $4\frac{3}{4}$; 5; $5\frac{1}{6}$; $+1\frac{5}{6}$; $7\frac{3}{8}$; $+\frac{5}{8}$; $7\frac{1}{2}$; $8\frac{1}{2}$; $+\frac{1}{2}$

Activity 3

1. $14\frac{4}{5}$ **2.** 5 **3.** $1\frac{2}{3}$ **4.** $1\frac{1}{3}$

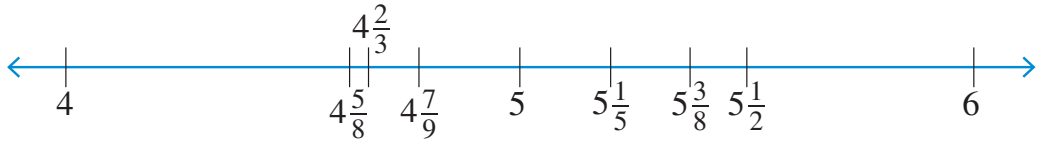
Worksheet 36: Revision

Activity 1

1. $\frac{1}{4} = \frac{2}{8} = \frac{3}{12}$ **2.** $\frac{2}{3} = \frac{4}{6} = \frac{8}{12}$ **3.** $\frac{2}{5} = \frac{4}{10}$ **4.** $\frac{3}{4} = \frac{9}{12}$

Activity 2

1.



2. $4\frac{5}{8}$ and $5\frac{3}{8}$ **3.** $4\frac{2}{3}$ **4.** $1\frac{2}{5}$

Activity 3

1. $13\frac{7}{10}$ **2.** $11\frac{2}{4}$ **3.** 3 **4.** $3\frac{2}{3}$

5. $1\frac{1}{7}$ **6.** $5\frac{2}{8}$ **7.** $6\frac{2}{4}$ **8.** $2\frac{2}{3}$

Activity 4

1. $\frac{5}{2} = 2\frac{1}{2}$

2. **a)** 9 counters

b) 8 counters

c) $\frac{8}{24} = \frac{1}{3}$

Worksheet 37: Number patterns (1)

Activity 1

1. 12; 17; 22; 27; 32; 37; 42; 47. Rule: Add five
2. 251; 258; 265; 272; 279; 286; 293. Rule: Add seven
3. 572; 585; 598; 611; 624; 637; 650; 663. Rule: Add thirteen
4. 125; 140; 155; 170; 185; 200; 215. Rule: Add fifteen

Activity 2

1. 2; 12; 32; 72; 152
2. 512; 128; 32; 8; 2
3. 5; 6; 8; 11; 15
4. 1 875; 375; 75; 15; 3

Extension Activity

1. 558; 564; 1 692
   Rule: Add 6 to every odd term, and multiply every even term by 3
2. 14; 9; 16
   Rule: Add 7 to every odd term, and subtract 5 from every even term

Worksheet 38: Number patterns (2)

Activity 1

1. 25
2. 7
3. 8
4. 5
5. 4
6. 45
7. 3
8. 1

Activity 2

1. $x - 1\,976 = 46$; $x = 2\,022$
2. $x \div 32 = 46$; $x = 1\,472$
3. *Mother* $\div$ 3 = *Jabu*; 52 = 25 + *mother*; *Mother* = 27 years old; *Jabu* = 9 years old

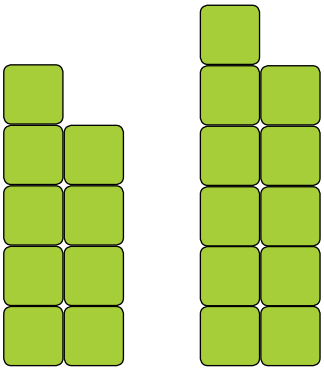
Activity 3

1. 19; 35; 43; 67
2. 9; 0; 6; 4
3. 61; 72; 270

Worksheet 39: Number patterns (3)

Activity 1

1.



2. Picture 5: Add 2; Picture 6: Add 4

3.

Picture	1	2	3	4	5	6	10	20
Number of blocks	1	3	5	7	9	11	19	39

4. Double the term number, and subtract one

5. 1; 3; 5; 11; 19; 39

6. $30 \times 2 - 1 = 59$ blocks

Worksheet 40: Number patterns (4)

Activity 1

1.

Picture	1	2	3	4	5	8	10	15	30
Number of tiles	4	8	12	16	20	32	40	60	120

2. Multiply by four

Activity 2

1. 5 blue

2. 8; 13; 18; 23; 28; 53

3.

Yellow tiles	1	2	3	4	5	10	12	20
Blue tiles	8	13	18	23	28	53	63	103

Worksheet 41: Number patterns (5)

Activity 1

1. 3 triangles
2. 1; 4; 7; 10; $5 \times 3 - 2 = 13$; $6 \times 3 - 2 = 16$
3. Multiply the term number by 3, and subtract 2.
4. $1 \times 3 - 2 = 1$; $2 \times 3 - 2 = 4$; $3 \times 3 - 2 = 7$; $4 \times 3 - 2 = 10$; $5 \times 3 - 2 = 13$; $6 \times 3 - 2 = 16$
5. picture 50

Worksheet 42: What shape am I?

Activity 1

1. irregular hexagon
2. regular heptagon
3. irregular trapezium
4. regular pentagon
5. irregular hexagon
6. regular hexagon
7. irregular hexagon
8. irregular rectangle

Activity 2

1. square
2. rectangle
3. triangle
4. heptagon
5. circle

Worksheet 43: Sorting shapes

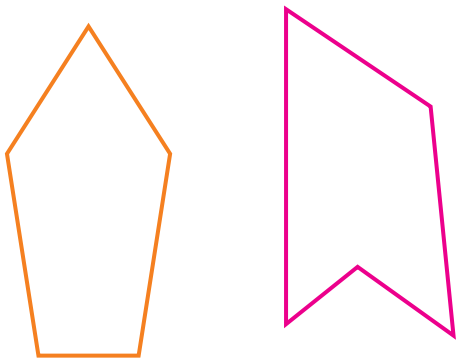
Activity 1

1. 13; 16; 26; 30
2. 2; 5; 6; 7; 8; 9; 11; 15; 19; 20; 21; 22; 23; 24; 27; 29; 31; 32
3. 1; 3; 4; 10; 12; 14; 17; 18; 25; 28
4. 3; 6; 8; 10; 11; 15; 18; 24; 27; 29; 32
5. 6; 8; 11; 24; 32
6. 3; 10; 18
7. 1; 5; 20; 22
8. a) 4; 21
   b) 12; 14; 28
   c) 7; 17; 19; 25
9. Trapezium and Rhombus
10. a) pentagon
    b) they both have 5 sides
    c) one is regular and one is irregular pentagon
11. a) triangles
    b) the lengths of the sides

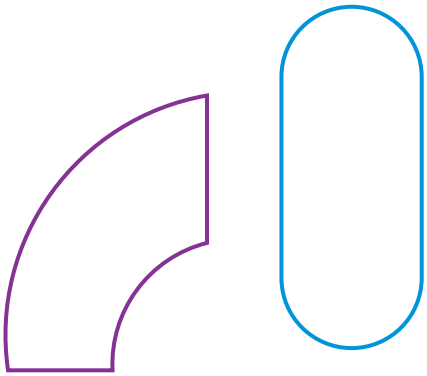
Worksheet 44: Shape riddles

Activity 1

1. Two different irregular shapes with five straight sides

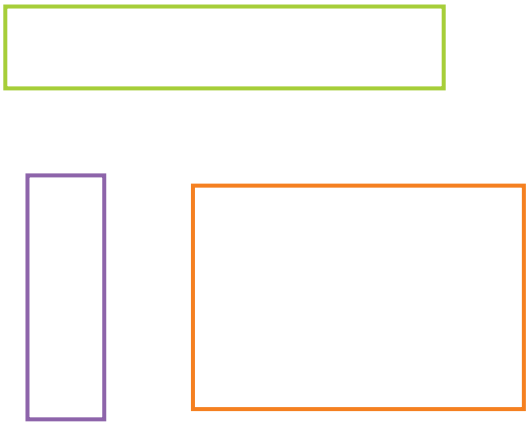


2. Two different irregular shapes with curved and straight sides

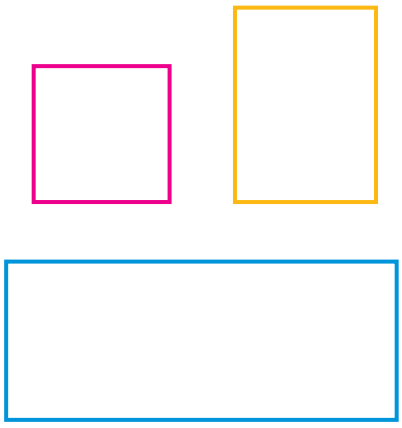


3. A quadrilateral with all sides the same length

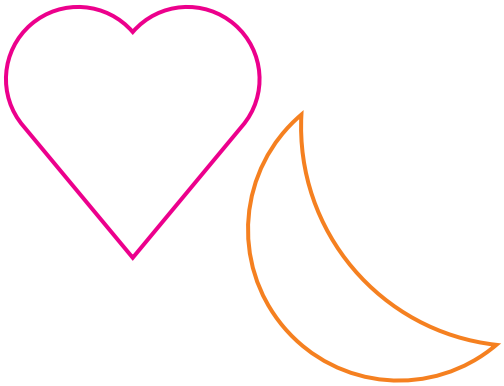
4. Three different rectangles



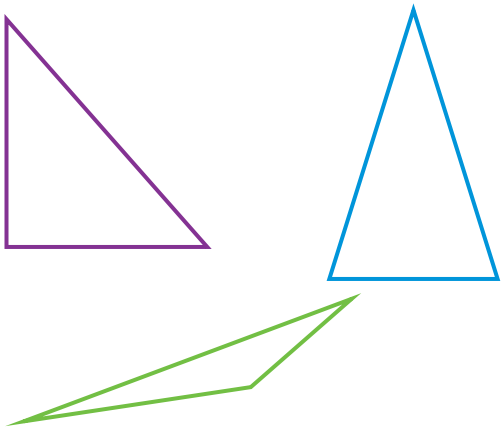
5. Two different rectangles and one square



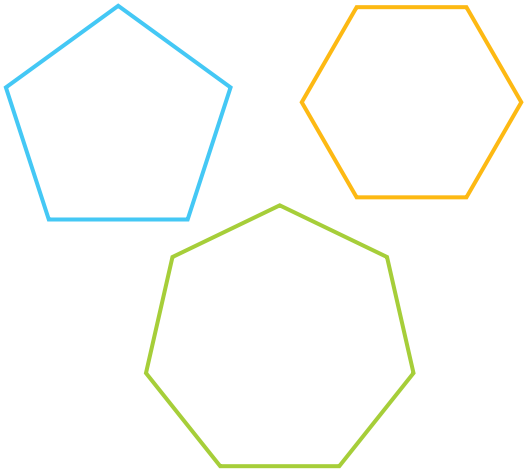
6. Two curved shapes



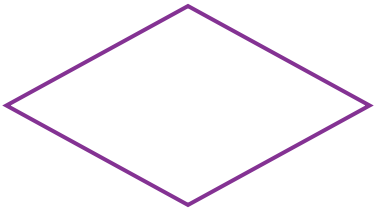
7. Three different triangles, one with a right angle.



8. A regular pentagon, heptagon and hexagon.



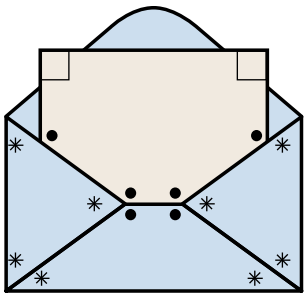
9. A shape of your own. Say if it is regular or irregular, has straight or curved sides, and if the sides are all the same length.



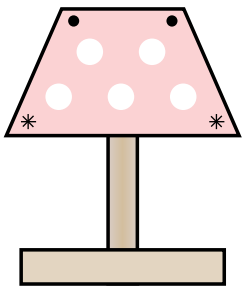
Worksheet 45: Hunting angles

Activity 1

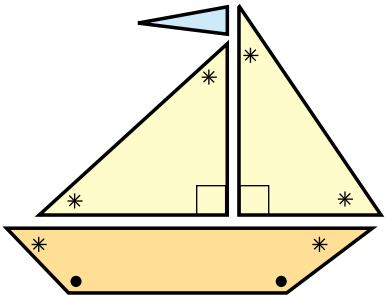
1.



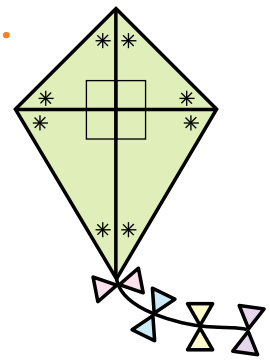
2.



3.

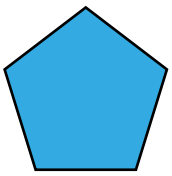
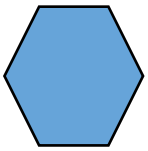
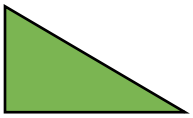
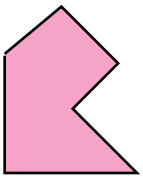


4.



Worksheet 46: Angles and shapes

Activity 1

Shape	Name of shape	Number of angles	Number of right angles
	Regular pentagon	Five	None
	Regular heptagon	Six	None
	Right angled triangle	Three	One
	Rectangle	Four	Four
	Hexagon	Six	None
	Square	Four	Four

Worksheet 47: Composite shapes

Activity 1

Learners' own work

Activity 2

Learners' own work

Worksheet 48: Squares and rectangles

Activity 1

1. A = 4
B = 4
C = 4
D = 4
E = 4
F = 4
G = 4
H = 4

2. A = 4
B = 4
C = 4
D = 4
E = 4
F = 4
G = 4
H = 4

3.

Shape	A	B	C	D	E	F	G
Length of side (top)	3	3	5	5	1	1	3
Length of side (bottom)	3	3	5	5	1	1	3
Length of side (left)	3	2	2	5	3	1	5
Length of side (right)	3	2	2	5	3	1	5

4. A, D, and F are squares, because all 4 sides equal.

5. B, C, E, and G are rectangles, because 2 pairs of opposite sides are equal.

6. They're both rectangles

7. Squares = 4 equal sides. Rectangles = 2 pairs of opposite sides equal.

Worksheet 49: Irregular shapes

Activity 1

1. A shape with unequal sides and unequal interior angles

2. Regular polygon = equal sides and equal interior angles; Irregular polygon = unequal sides and unequal interior angles.

Activity 2

Learners' own work

Activity 3

Learners' own work

Worksheet 50: Recognising 3-D objects

Activity 1

1.

spheres	cylinders	cones	pyramids	rectangular prisms	triangular prisms	cubes
A, B, J	E, G, M	F, H	N	C, D	K	I, L

Worksheet 51: Naming 3-D objects

Activity 1

Number	Name	Reason
1.	Square prism	2 square surfaces, and 4 rectangular surfaces
2.	Sphere	1 curved surface, no angles
3.	Cylinder	2 circular bases and 1 curved surface
4.	Cone	circular base connected to 1 vertex
5.	Square pyramid	square base and 4 triangular surfaces
6.	Triangular prism	2 triangular bases and 3 rectangular surfaces
7.	Hexagonal prism	2 hexagon bases and 6 rectangular surfaces

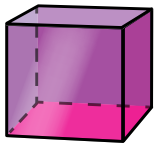
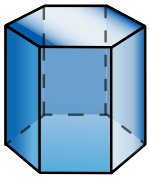
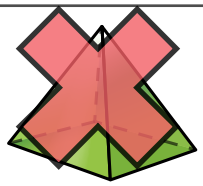
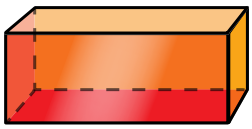
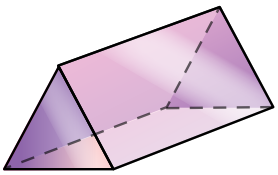
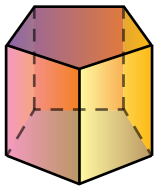
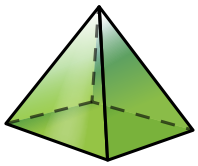
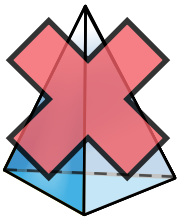
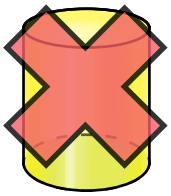
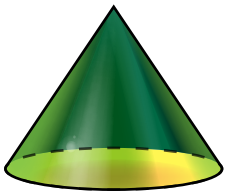
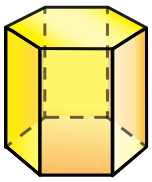
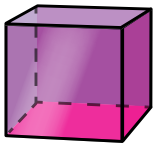
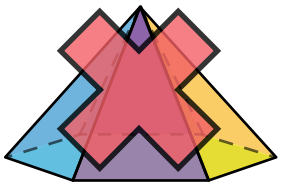
Worksheet 52: Describing 3-D objects (1)

Activity 1

Number	Name	Shapes of faces	Number of edges	Number of vertices	Number of faces
1.	Cube	Square	12	8	6
2.	Square prism	Square and rectangle	12	8	6
3.	Square pyramid	Square and triangle	8	5	5
4.	Cylinder	Circle and rectangle	2	0	3
5.	Triangular prism	Triangle and rectangle	9	6	5
6.	Sphere	Curved	0	0	1
7.	Hexagonal prism	Hexagon and rectangle	18	12	8

Worksheet 53: Describing 3-D objects (2)

Activity 1

Description	A	B	C
1. 7 faces 15 edges 10 vertices			
2. 5 faces 8 edges 5 vertices			
3. 4 faces 6 edges 5 vertices			
4. 3 faces 2 edges 0 vertices			
5. 7 faces 12 edges 7 vertices			

Worksheet 54: Making 3-D objects

Activity 1

Learners' own work

Worksheet 55: Nets of 3-D objects (1)

Activity 1

Learners' own work

Worksheet 56: Nets of 3-D objects (2)

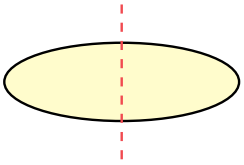
Activity 1

1. Triangular pyramid
2. Cube
3. Square pyramid
4. Triangular prism
5. Cone
6. Cylinder
7. Pentagonal prism
8. Hexagonal prism

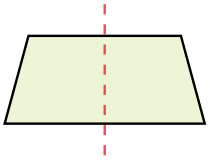
Worksheet 57: Symmetry (1)

Activity 1

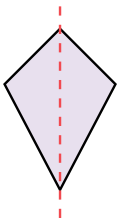
1. Not a line of symmetry



2. Is a line of symmetry
3. Not a line of symmetry

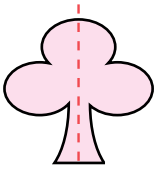
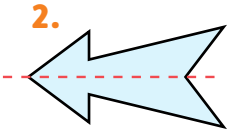
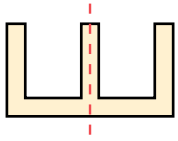
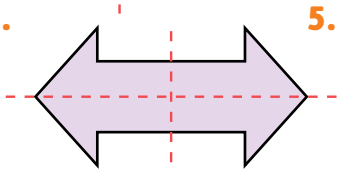
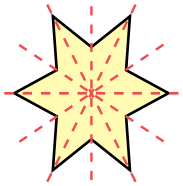
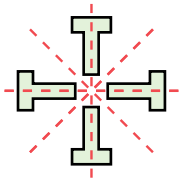


4. Not a line of symmetry

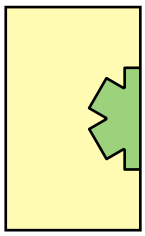


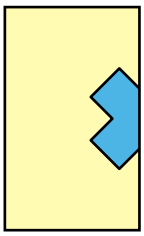
5. Is a line of symmetry

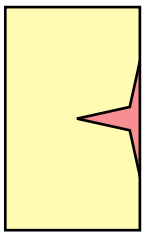
Activity 2

1. 
2. 
3. 
4. 
5. 
6. 

Activity 3

1. 

2. 

3. 

Worksheet 58: Symmetry (2)

1 & 2. Learners' own work

3.

Shape	A	B	C	D	E	F	G	H
Number of lines of symmetry	3	2	2	5	6	infinite	1	8
Number of sides	3	4	4	5	6	1	4	8

Extension

4. In most cases, number of sides equals the lines of symmetry. This is not always the case.

Worksheet 59: Reflections, rotations and translations

Activity 1

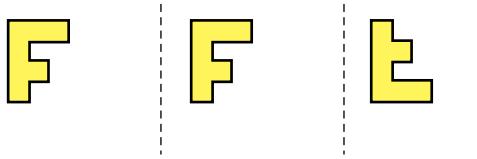
1. Translation down and left

2. Rotation

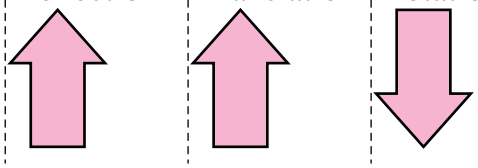
3. Reflection

Activity 2

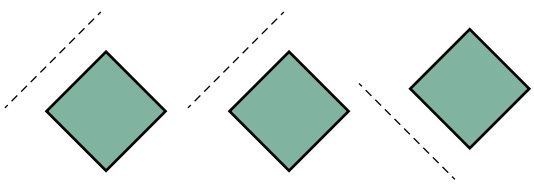
1. Reflection Translation Rotation



2. Reflection Translation Rotation



3. Reflection Translation Rotation



Extension Activity

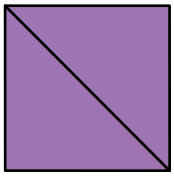
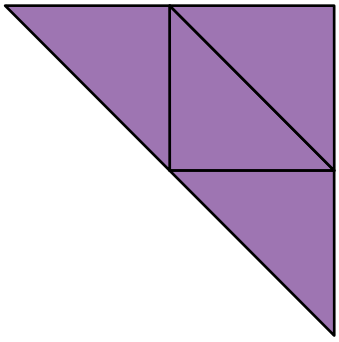
1. Reflection, rotation and transformation all give the same image of the shape.
2. Learners' own work

Worksheet 60: Transformations (1)

Activity 1

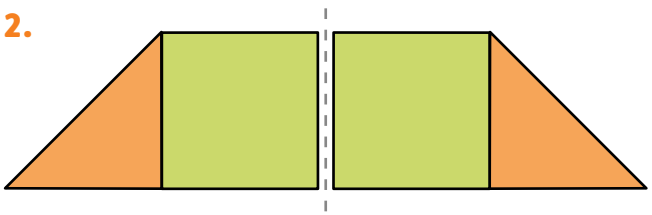
Learners' own work

Activity 2

1. Learners' own work
2. 
3. 
4. Triangle

Worksheet 61: Transformations (2)

Activity 1

1. & 2. 
3. Trapezium

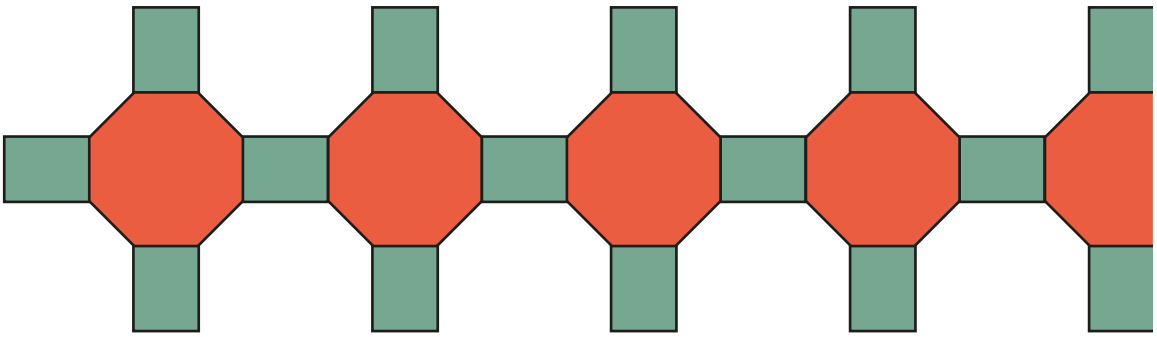
Activity 2

1. A triangle reflected on its short size, and then reflected on its short side twice more.
2. Parallelogram

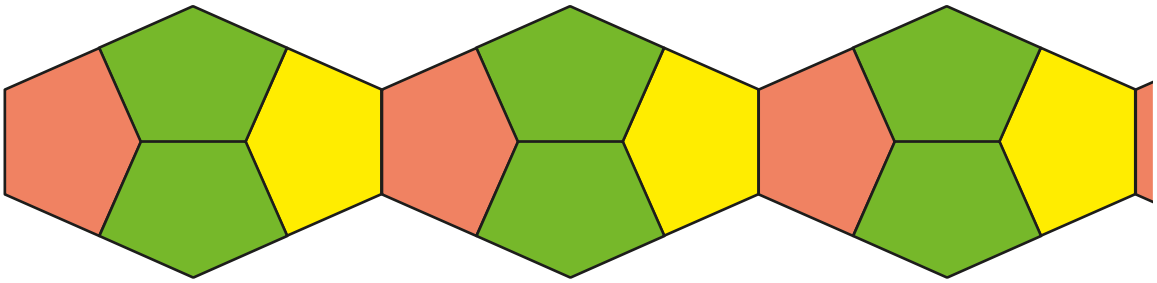
Worksheet 62: Tessellations

Activity 1

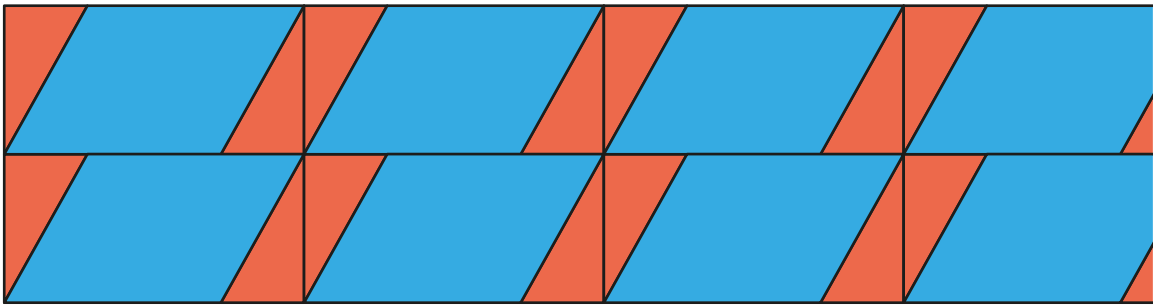
1.



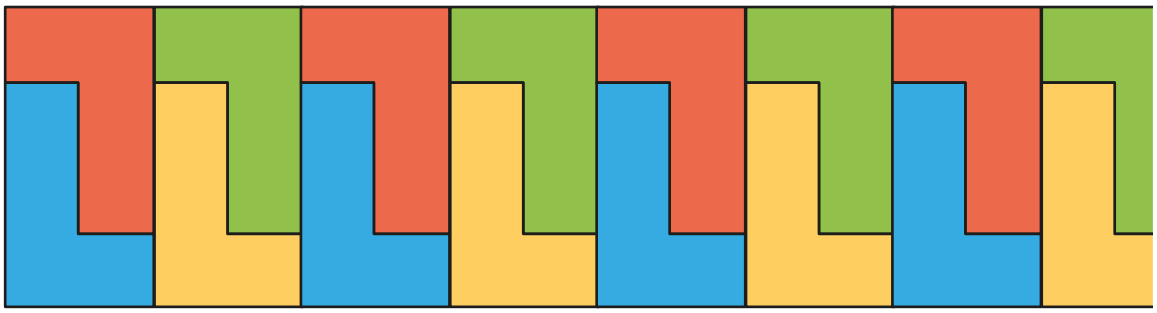
2.



3.



4.

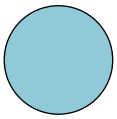
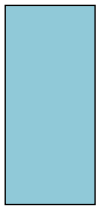
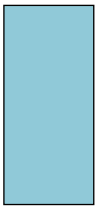
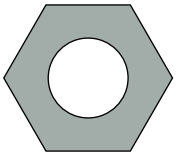
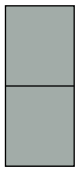
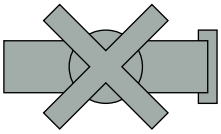
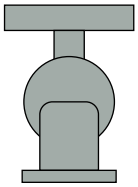
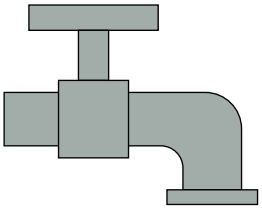
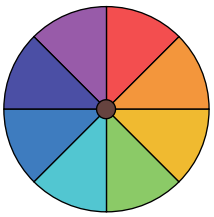
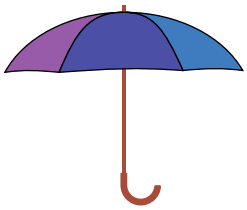
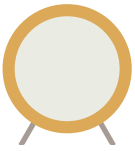
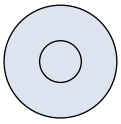
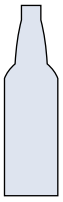
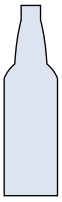


Activity 2

Learners' own work

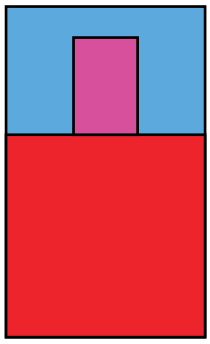
Worksheet 63: Viewing of objects (1)

Activity 1

	3-D object	Top view	Front view	Side view
1.				
2.				
3.				
4.				
5.				
6.				

Worksheet 64: Viewing of objects (2)

Activity 1

1. a) Cedric b) Songezo c) Kezia
2. a) Yes, the red block can be viewed from her angle.
   b) 

Worksheet 65: Position and movement

Activity 1

1. Kauai
2. G4
3. Hawaii
4. G5
5. Hawaii

Activity 2

1. a) C4 b) B2
   c) building with fountain d) houses
2. a & b) Route 1: A1, A2, A3, B3, C3.
   Route 2: A1, B1, C1, C2, C3
3. a) On the corner of Rose Street and Main Road
   b) C2

Worksheet 66: Length (1)

Activity 1

1. ± 3 m **2.** ± 300 m **3.** ± 1,5 m **4.** ± 1 m **5.** ± 0,5 m

Activity 2

1. 75 mm **2.** 138 mm **3.** 42 mm **4.** 186 mm

Activity 3

Ruler	Tape measure	Metre stick	Trundle wheel
width of this book length of a slab of chocolate length of a teaspoon	height of a door height of a bookshelf how far you jump in a sandput	length of a car height of a giraffe	length of the playground distance from your house to the shops distance for 100 m sprint

Worksheet 67: Length (2)

Activity 1

Learners' own work

Activity 2

1. 5 cm < 52 mm < $2\frac{1}{4}$ m; 3 m; $\frac{1}{4}$ km; 1 250 m

2. 42 mm < $4\frac{1}{2}$ cm < 400 mm < 450 cm < 4 250 cm < 4 km

3. $6\frac{3}{4}$ cm < 68 mm <63 cm < 639 cm < 6 km < 6 090 m

Activity 3

1. 28 cm **2.** 123 cm **3.** 729,9 cm **4.** 24 poles

Worksheet 68: Length (3)

Activity 1

1. 65 mm **2.** 135 km **3.** 2 500 m

4. 250 m **5.** 2 000 mm **6.** 1 200 000 cm

Activity 2

1. 300 cm
2. 34 600 m
3. 44 579 m
4. 633 m
5. 43 eighths

Extension Activity

1. 50 km
2. Kirstenbosch

Worksheet 69: Mass (1)

Activity 1

Learners' own work

Activity 2

1. C
2. B
3. C

Activity 3

1. 65 kg
2. 75 g
3. 0,4 g
4. 80 g

Worksheet 70: Mass (2)

Activity 1

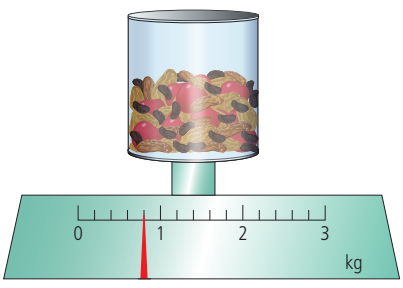
1. 65 g < 680 g < 6,5 kg < 56 kg < 65 kg
2. 500 g < 550 g < 1 500 g < 5[1/2] kg < 500 kg
3. 340 g < 430 g < 3,4 kg < 34 kg < 340 kg

Activity 2

250 g

Activity 3

1.



2. 700 g

Worksheet 71: Mass (3)

Activity 1

1. 8 700 g **2.** 2,2 kg **3.** 5,1 kg

4. 7 100 g **5.** 12 kg **6.** 35 700 g

Activity 2

1. 120 kg **2.** 100 g **3.** 6 kg 554 g

4. 3 kg 380 g **5.** 18 kg **6.** 9 cakes

Activity 3

1. Ansaaf's cat is heavier (4 000 g > 2 900 g)

2. 1,150 kg more

Worksheet 72: Capacity (1)

Activity 1

1. 4 ℓ **2.** 10 ml **3.** 120 ml

4. 325 ml **5.** 34 ml

Activity 2

1. 8 ℓ

2. $\frac{5}{8}$

3. 3 ℓ = 3 000 ml

Worksheet 73: Capacity (2)

Activity 1

millilitres	litres
810 000	810
180 000	180
632 000	632
750	0,75
2 750	$2\frac{3}{4}$

Activity 2

1. 12 litres
2. 36 litres

Activity 3

1. 50 ml
2. 500 ml
3. one 1,5 litres is more
4. 3 960 ml

Worksheet 74: Telling the time (1)

Activity 1

1. Quarter past twelve; 12:15
2. Twenty to eight; 07:40
3. Ten past five; 05:10
4. Quarter past ten; 10:15
5. Seven past five; 05:07
6. Two o clock; 02:00
7. Three minutes past ten; 10:03
8. Eighteen minutes past nine; 09:18
9. Quarter to nine; 08:45
10. Ten past five; 05:10
11. A minute to one; 01:59
12. Quarter to eleven; 10:45
13. Five past six; 06:05
14. Half past six; 06:30
15. Twenty-three minutes to one; 12:37

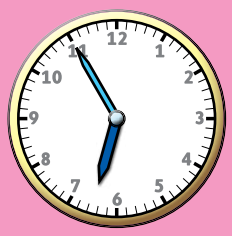
Worksheet 75: Telling the time (2)

Activity 1

At half past eleven I have tea.	
Sarah has a doctor's appointment at 4:30 this afternoon.	
	
It is now 12:18. I have to be home in half an hour. What time must I be home?	
	Nineteen minutes past seven
I take my dinner out of the microwave at 19:19.	
Father fetches us from school at 15:22.	I wake up to go to school at 6:15 a.m.
The art class starts at 17:50.	There is athletics practice at twenty to six this afternoon.
Mother comes home from work at ten past four in the afternoon.	

Worksheet 76: Telling the time (3)

Activity 1

	6 minutes past midnight	05:10	
11:18 p.m.		19:49	15:15
5 to 7 in the evening		3:15 p.m.	23:18
00:06	7:49 p.m.	18:55	
5:10 a.m.	06:30		

Worksheet 77: 12-hour time and 24-hour time

Activity 1

1. 12:00 a.m. **2.** 07:34 p.m. **3.** 08:58 p.m.

4. 01:27 p.m. **5.** 06:46 a.m. **6.** 03:16 p.m.

Activity 2

1. 12:00 **2.** 15:34 **3.** 08:25

4. 14:13 **5.** 02:50 **6.** 16:06

Activity 3

1. **a)** 06:02 **b)** 18:02

2. 05:32 **3.** 06:34

4. 73 minutes **5.** 07:45

Worksheet 78: Time conversions

Activity 1

1. **a)** 5 min **b)** 3 hours

c) 240 min **d)** 300 sec

2. **a)** 103 hours **b)** 128 hours

c) 210 min **d)** 5 hours and 6 min

e) 10 days **f)** 168 hours

g) 3 days and 18 hours **h)** 8 weeks

Activity 2

1. 55 minutes **2.** 08:02 **3.** 08:05

4. 5 minutes **5.** 09:04

Worksheet 79: Elapsed time

Activity 1

1. A: 2 hours, 59 min, and 57 seconds (10 797

B: 4 hours, 11 min, and 48 seconds

2. 71 min 51 seconds

Extension

3. 3,4 min/km

Activity 2

1. R250

2. 19:45

3. 18 hours

4. R936

5. **a)** 6 hours

b) 20:00

Worksheet 80: Calendars

Activity 1

1. Wednesday

2. 10 August

3. 14 July

4. 7 August

5. 3 July

6. 22 days

7. 9 August – Women's Day

8. 164 days, 9 hours, 45 minutes.

Worksheet 81: Temperature (1)

Activity 1

Learners' own work

Activity 2

1. 18 ℃

2. 45 ℃

3. 32 ℃

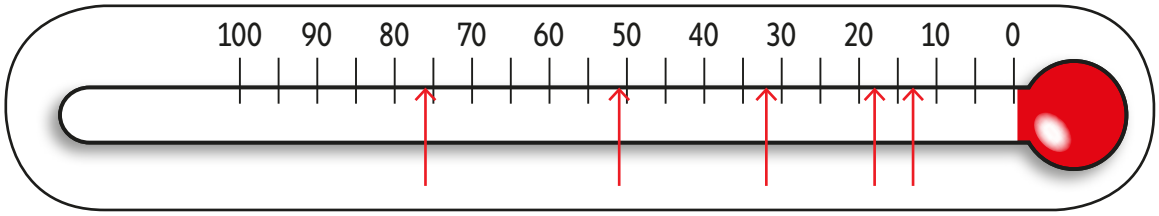
4. 16 ℃

Activity 3

33 ℃

Worksheet 82: Temperature (2)

Activity 1



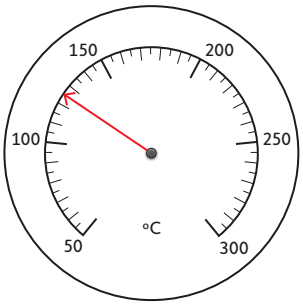
Activity 2

1. 22 °C

2. **a)** 15 °C **b)** 6 °C **c)** 13 °C
d) 21 °C **e)** 8 °C **f)** 11 °C

Activity 3

1.



2. 18:05

Activity 4

1. 29 °C; 5 °C below 0; 27 °C; 26 °C; 22 °C

2. **a)** 5 °C **b)** 18 °C
c) $\frac{1}{2}$ **d)** $\frac{2}{5}$

Extension Activity

74 °C

Worksheet 83: Perimeter

Activity 1

1. 12 mm **2.** 120 mm
3. 120 mm **4.** 120 mm

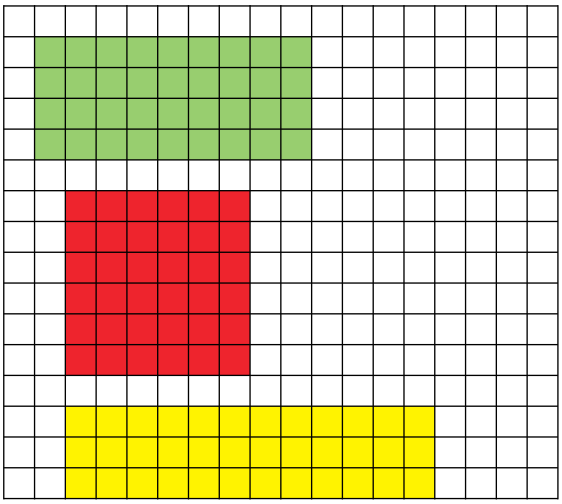
Activity 2

1. 20 cm **2.** 52 mm
3. 24 cm **4.** 34 cm
5. 29 cm **6.** 18 cm

Activity 3

1. 26 units

2.



3. red: perimeter of 24 units; green: perimeter of 26 units; yellow: 30 units

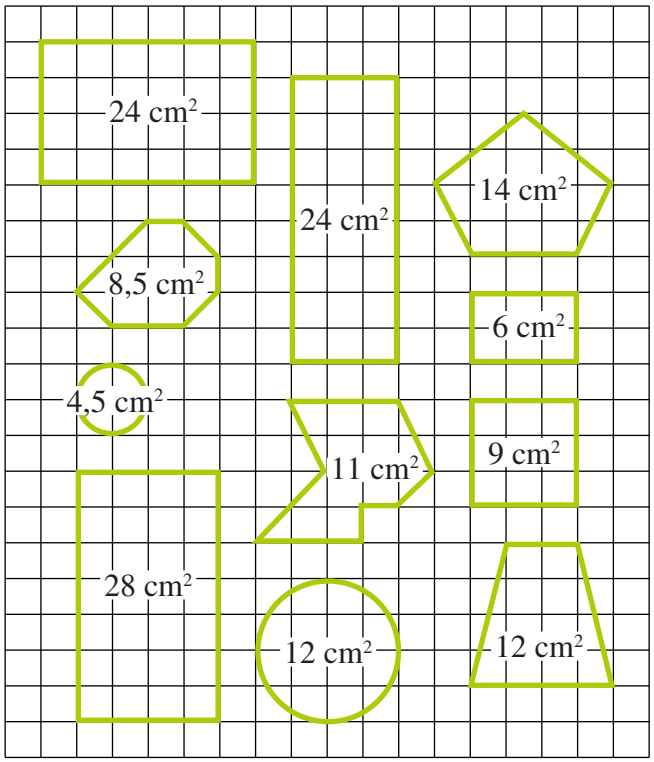
Extension Activity

1. 10 cm, 10 cm and 14 cm

2. 14,4 cm

Worksheet 84: Area

Activity 1



Activity 2

Learners' own work

Extension Activity

1. 2 units

2. **a)** 4 litres

b) R60

Worksheet 85: Volume

Activity 1

1. 10 cm^3

2. 8 cm^3

3. 36 cm^3

4. 56 cm^3

5. 69 cm^3

6. 75 cm^3

Activity 2

1. 24 cm^3

2. **a)** 3 cm

b) 2 cm

c) 4 cm

3. $4 \times 2 \times 3 = 24$

4. The length × breadth × height is equal to the number of cubes in the prism

Extension Activity

1. 36 $units^3$

2. **a)** 15 cubes

b) 4 layers

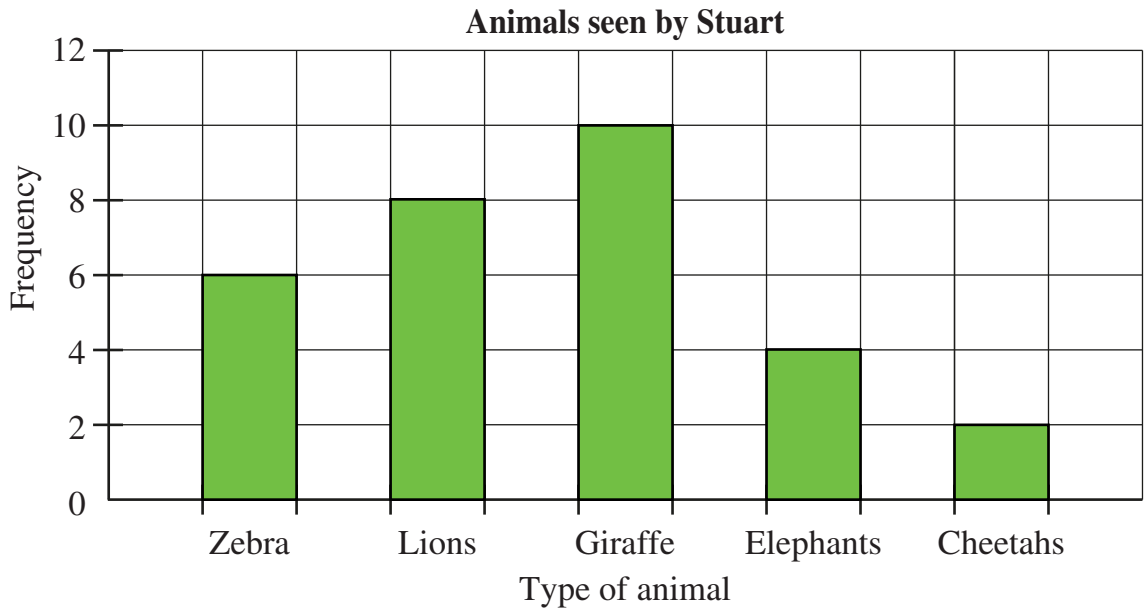
Worksheet 86: Bar graphs (1)

Activity 1

1.

Animal	Tally	Total
Zebra	𝍸 I	6
Lions	𝍸 III	8
Giraffe	𝍸 𝍸	10
Elephants	IIII	4
Cheetahs	II	2

2.



3. **a)** Giraffe

b) Cheetahs

c) 30 animals

Worksheet 87: Bar graphs (2)

Activity 1

1. 2014

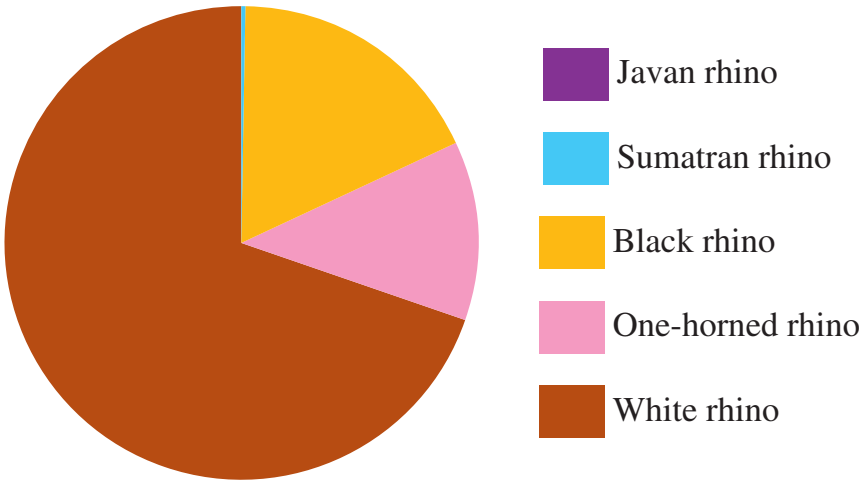
2. 547 rhino

3. 187 rhino

4. Countries anti-poaching campaigns. Also fewer rhino in the wild means its harder to poach them
5. 5 476 rhino

Worksheet 88: Pie charts

Activity 1



Activity 2

0; 4; 12; 24; 38; 49; 79; 96; 222; 504

Worksheet 89: Pie charts and pictographs

Activity 1

1.	3; 4; 5; 5; 5; 6; 6; 7; 8	Mode = 5
2.	4; 4; 5; 5; 6; 7; 7; 7	Mode = 7
3.	14; 15; 15; 16; 18; 19; 22; 23; 23; 30	Mode = 15 and 23
4.	41; 41; 42; 43; 43; 43; 45; 45; 47; 48	Mode = 43
5.	41; 41; 42; 43; 43; 43; 45; 45; 47; 48	Mode = 43

Activity 2

1. Souvenirs
2. Chocolates and crisps
3. Cooldrinks

Activity 3

Item	Quantity
Biltong	
Sweets	
Cool drinks	
Chocolates	
Crisps	
Souvenirs	

Worksheet 90: Pictographs

Activity 1

1. Car A: 175 km; Car B: 337,5 km
2. 137,5 km
3. Wednesday
4. 3 cars

Worksheet 91: Probability

Activity 1

Learners' own work