3 tenths and

9 hundredths

is 0.39

Α

- 1 38 plus 24
- 2 56 minus 39
- 3 Double 16
- **4** Halve 34
- **5** Cents in \$8.68
- **6** 8 000 + 500 + 40 + 9
- **7** 0.72 as a percentage
- 8 Is 14 589 > 14 859?
- 9 Is $\frac{1}{2}$ greater than $\frac{2}{5}$?
- **10** $\frac{1}{3}$ of 18
- 11 Hindu-Arabic numeral for CCXXI
- **12** Is 7 a factor of 35?
- **13** 7 squared
- **14** 24 + = 56
- **15** Centimetres in 59 mm
- **16** Perimeter of rectangle 6 m by 7 m
- 17 Millilitres in 3.5 L
- 18 Grams in 4.5 kg
- **19** Days in 5 weeks

9

20 How many sides has a quadrilateral?

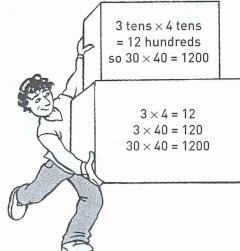


2

- 8
- 1 39 plus 56
- 2 72 minus 39
- 3 10 times 16
- 4 54 divided by 9
- **5** Spent \$3.55, change from \$10
- **6** Tens in 36 754
- 7 3 units + 4 tenths + 9 hundredths as decimal
- 8 Round off 38 658 to nearest thousand
- 9 Is $\frac{4}{10}$ equal to $\frac{2}{3}$?
- 10 $\frac{3}{5}$ of 15
- 11 Roman numeral for 351
- **12** Is 139 divisible by 3?
- 13 Ordinal number for twenty-third
- 14 7 × = 63
- 15 Kilometres in 8 500 m
- 16 Perimeter of a square with 12 cm sides
- 17 Litres in 4 580 mL
- **18** Kilograms in 3 590 g
- **19** Minutes from 9:29 to 11:16
- **20** An hexagonal prism has faces.



Complete the multiplication grids.



×	20	30	40	50	60	70
6						
9						
7						
8						

×	20	30	40	50	60	70
10						
20					F	
30						
40						

Excel Mental Maths Strategies Year 6 - Unit 9

4 /F plus 42

- **1** 45 plus 62
- 2 81 minus 35
- 3 10 times 13
- 4 45 divided by 5
- **5** Cents in \$10.45
- 6 60 000 + 7 000 + 400 + 30 + 9
- 7 1 unit + 4 tenths + 7 hundredths as decimal
- 8 Is 54 689 closer to 54 000 or 55 000?
- 9 Is $\frac{3}{4}$ equal to $\frac{6}{8}$?
- 10 $\frac{4}{5}$ of 30
- 11 Roman numeral for 299
- 12 Are 4 and 5 both factors of 30?
- 13 Next odd number after 97
- 14 $5 \times 6 + 3 \times 6$
- 15 Centimetres in 87 mm
- 16 Area of a square with 9 cm sides
- 17 Millilitres in 5.6 L
- 18 Grams in 4.5 kg
- 19 Minutes from 11:34 to 12:06
- 20 How many sides has a parallelogram?



- 1 459 and 85 more
- 2 329 take away 78
- **3** 65 times 10
- **4** 690 divided by 10
- **5** 14·5 + 6·8
- 6 Place value of 2 in 425 617
- 7 75% as a decimal
- 8 Is 46 304 < 46 430?
- **9** Is $1\frac{1}{5}$ equal to $\frac{6}{5}$?
- **10** $\frac{7}{8}$ of \$32
- **11** Number 500 after 3 875
- **12** All factors of 64
- **13** 2 cubed
- 14 $4 + 6 \times 5 \div 10$
- 15 Metres in 3.5 km
- 16 Area of rectangle 5 cm by 9 cm
- 17 Litres in 6 500 mL
- 18 Kilograms in 8 500 g
- 19 9:53 am as analog time
- 20 A pentagonal prism has faces.



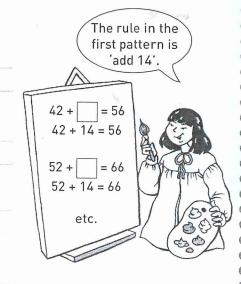
Complete the number patterns and write the rule for each.

First number	42	52	62	72	82	92
Second number	56	66	76	-		

First number	37	47	57	67	77	87
Second number	74	94	114			

First number	78	68	58	48	38	28
Second number	53	43	33			

First number	1	2	3	4	5	6
Second number	1	4	9			



0

- 39 plus 53
- 76 minus 48
- Double 27
- Halve 56
- 546 cents as dollars and cents
- 90 000 + 4 000 + 700 + 20 + 5
- 0.76 as a fraction
- 8 Round off 35 499 to nearest thousand
- **9** Is $\frac{1}{2}$ equal to $\frac{5}{10}$?
- 10 $\frac{1}{4}$ of 24
- 11 Hindu-Arabic numeral for CCCXLIV
- **12** Is 42 divisible by 6?
- 13 Is 9 a square number?
- = 92 **14** 38 +
- 15 Centimetres in 3.69 m
- 16 Area of square with 10 m sides
- 17 Litres in 6 500 mL
- 18 Kilograms in 3 500 g
- 19 Months in 5 years
- 20 How many faces on a rectangular prism?

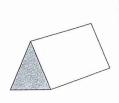


- 75 added to 68
- 38 less than 92
- 8 lots of 30
- How many eights in 56?
- Spent \$4.35, change from \$10
- Tens in 96 537
- 2 units + 8 tenths as decimal
- Is 56 835 < 56 735?
- **10** $\frac{9}{10}$ of 30
- **11** Number 500 after 35 894
- **12** Average of 19, 24 and 23
- **13** 12²
- 14 $18 \div 3 + 6 \times 4$
- 15 Kilometres in 8 500 m
- 16 Perimeter of square with 25 m sides
- 17 Litres in 7 500 mL.
- 18 Kilograms in 4500 g
- **19** Is 10:46 the same as 14 to 10?
- 20 Direction between north and west

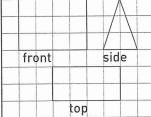


For each solid, draw the front, side and top view.

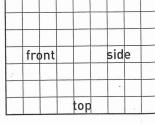
- For the front view, imagine that you are looking at it face on.
- For the top view, imagine that you are looking at it from the sky.
- For the side view, imagine that you are looking at it side on.



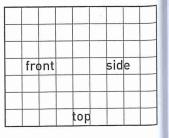
0











1 is equivalent

to $\frac{3}{2}$ because

- 1 52 and 29 more
- 2 25 less than 81
- 3 24 multiplied by 4
- How many fours in 36?
- Halve \$10.86
- Tens in 46 532
- 0.3 as a fraction
- Is 68 642 > 68 542?
- 10 $\frac{4}{5}$ of 30
- 11 Number 500 before 37 381
- 12 Average of 21, 18 and 15
- **13** 6²
- 14 $3 \times 4 + 15 \div 3$
- 15 Metres in 6.5 km
- 16 Perimeter of square with 20 m sides
- 17 Litres in 9 500 mL
- 18 Grams in 3.5 kg
- 19 16 to 7 as digital time
- 20 Direction opposite SE

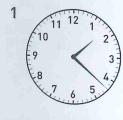
- 1 To 687 add 94
- From 721 take 97
- 35 times 10
- $670 \div 10$
- \$3.40 + \$3.29 + \$2.35



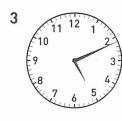
- Expanded notation for 86 391
- 0.73 as a percentage
- Is 164 584 > 165 971?
- $2\frac{5}{9}$ as improper fraction
- **10** 10% of \$90
- **11** Number is 1 000 after 25 962
- **12** All factors of 56
- **13** 3 cubed
- **14** $[9+8] \times [7-5]$
- 15 Kilometres in 4 500 m
- 16 Perimeter of regular hexagon sides 5 cm
- 17 Millilitres in 9.5 L
- 18 Kilograms in 8 t
- **19** 05:46 as digital time
- 20 Is an obtuse angle less than 90°?

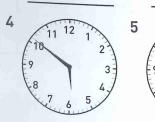


Write the digital time for each time shown.



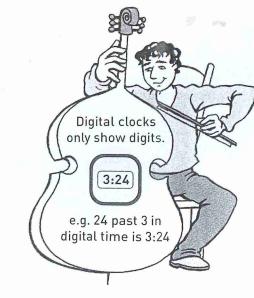












1 12 + 13 + 18

2 79 - 46

Double 28

Half of 52

How many 5 cent coins in \$1?

6 000 + 400 + 80 + 3

7 65% as a decimal

8 Is 8 675 > 8 567?

Is $1\frac{2}{3}$ less than $1\frac{3}{7}$?

10 $\frac{1}{10}$ of 80

11 Number 100 after 5 891

12 Is 7 a factor of 27?

13 Next even number after 65

14 7 × = 63

15 Centimetres in 4 m

16 Perimeter of a square with 5 m sides

17 Millilitres in 3.5 L

18 Grams in 6.5 kg _____

0

-

0

19 Days in a leap year

20 How many degrees in a right angle?







1 67 plus 29

86 minus 47

67 times 5

72 divided by 9

Spent \$6.85, change from \$10

Thousands in 13 684

9 tenths as a decimal

ls 95 289 < 95 298?

9 Is $1\frac{4}{5}$ less than than $1\frac{7}{10}$?

10 Is $\frac{2}{3}$ of 12 equal to 9?

11 Number 500 after 34 765

12 Is 9 a factor of 63?

13 9²

14 6 + (3 × 8) - 14

15 Kilometres in 5 500 m

16 Area of rectangle 7 cm by 5 cm

17 Litres in 10 500 mL

18 Kilograms in 6 500 g

19 Minutes from 5:07 to 5:59

20 Direction opposite SW



What fraction of each shape is coloured?

> 5 out of 8 equal parts coloured is $\frac{5}{8}$.

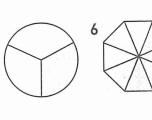




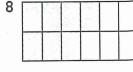














=60+20+8+3

= 80 + 11

= 91

49 added to 38

From 92 take 68

34 times 6

How many sevens in 63?

9.6 - 6.7

60 000 + 7 000 + 400 + 30 + 2

5 tenths as a decimal

Round off 56 357 to nearest hundred

 $1\frac{3}{7}$ as an improper fraction

10 Is $\frac{2}{2}$ of 15 equal to 10?

11 Number 1 000 after 63 872

12 Average of 25, 17, 31 and 19

13 8²

Move:

30 m north

110 m east

90 m north

40 m west 60 m south 120 m west 50 m north 70 m east 30 m south

14 $5 \times 8 - 3 \times 7$

15 Kilometres in 7 500 m

16 Area of rectangle 5 cm by 4 cm

17 Litres in 7 500 mL

18 Grams in 8.5 kg

19 Minutes from 6:21am to 7:03 am

20 Are opposite sides of a parallelogram equal?

Plot this course on the grid.

At which point did you arrive?

 $1\frac{3}{5}$ can be written as the improper fraction $\frac{8}{5}$.

1 249 and 34 more

D

2 From 749 take 68

147 times 10

790 divided by 10

\$2.53 + \$1.60 + \$3.78

How many thousands in 469 301?

0.73 as a fraction

8 Is 456 920 > 456 819?

9 $2\frac{2}{3}$ as improper fraction

10 20% of \$80

11 Roman numeral for 589

12 Average of 45, 67, 39 and 57

13 Square root of 36

14 $21 + 5 \times 7 - 39$

15 Kilometres in 9 500 m

16 Perimeter of pentagon with 4 cm sides

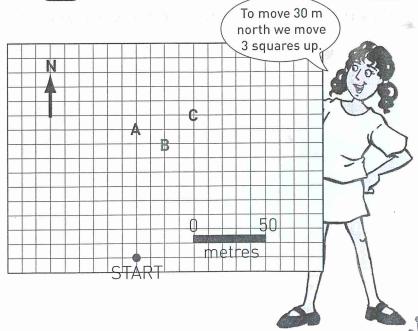
17 Millilitres in 8.5 L

18 Kilograms in 9 t

19 1:24 pm as 24-hour time

20 Is a straight angle 180°?





- 1 46 + 29
- 78 49
- 3 6+6+6+6
- Divide 35 by 7
- Cents in \$9.45
- Tens in 5 692
- $\frac{65}{100}$ as a decimal
- 8 Is 4 675 > 4 575?
- 9 Is $1\frac{4}{5}$ an improper fraction?
- 11 Hindu-Arabic numeral for CCCXLII
- **12** Is 3 a factor of 19?
- 13 Last odd number before 200
- **14** 156, 166, 176,
- 15 Metres in 750 cm
- 16 Perimeter of a square with 4 m sides
- **17** Litres in 8 500 mL
- 18 Kilograms in 3 500 g
- 19 Minutes in 3 hours
- 20 Degrees in two right angles



- 163 + 25
- 194 63
- 34×4
- $305 \div 5$

each

- Cost of 6 at \$1.20
- $60\ 000 + 3\ 000 + 900 + 30\ + 7$
- Decimal for one point seven six

To multiply by 4,

double then double

again.

- Is 87 256 > 87 526?
- Mixed number for $\frac{5}{7}$
- $\frac{3}{5}$ of \$15
- 11 Number 500 after 45 389
- **12** Is 6 a factor of 24?
- **13** 5² + 4
- 14 $7 \times 3 + 10 \div 2$
- 15 Centimetres in 6.35 m
- 16 Perimeter of rectangle 6 cm by 5 cm
- **17** Litres in 7 500 mL
- 18 Kilograms in 4 375 g
- 19 Seconds in $2\frac{1}{2}$ minutes
- 20 Is 75° an acute angle?

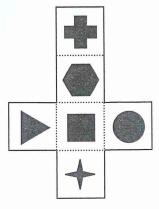


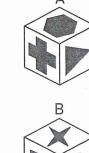
Here is the net of a cube.

Which cube below could not be made from this net?

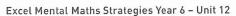


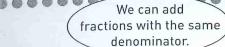
A net is a flat pattern that can be folded to make a solid shape.











- 1 145 + 34
- 187 26
- 102 × 4 4 369 ÷ 3
- \$3.60 + \$1.30
- Thousands in 54 987
- Decimal for 5 units + 9 tenths + 4 hundredths
- 8 Is 78 563 > 78 562?
- 0.6 as a fraction
- 10 $\frac{2}{3}$ of 18 candles
- 11 Number before 269 361
- 12 Is 8 a factor of 32?
- 13 $5^2 4$
- 14 $6 \times (4 + 16)$
- 15 Metres in 956 cm
- 16 Area of square with 7 cm sides
- 17 Millilitres in 4.5 L
- 18 Grams in 3.125 kg
- 19 Minutes in $3\frac{1}{4}$ hours
- 20 Degrees in a straight angle



- 1 567 and 49 more
- 683 minus 39
- 872×10
- 670 divided by 10
- **5** \$1.97 + \$1.59 + \$3.68
- 400 000 + 70 000 + 6 000 + 500 + 20 + 8
- $\frac{9}{10}$ as a percentage
- Is 4 654 857 > 4 652 875?
- $2\frac{5}{4}$ as improper fraction
- 11 Roman numeral for 647
- **12** Average of 65, 49, 76 and 90
- **13** Square root of 25
- 14 $8 \times 4 3 \times 5$
- 15 Metres in 4.5 km
- 16 Perimeter of triangle with 7 cm sides
- 17 Litres in 6 500 mL
- 18 Kilograms in 12 t
- 19 7:59 am as 24-hour time
- 20 How many edges on a square prism?



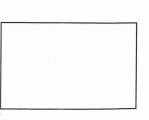
different ways

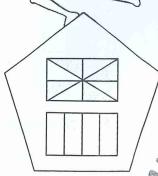
In different ways, colour half the area of each rectangle.











A

1 15 + 14 + 25

2 67 – 32

3 5+5+5+5+5

4 Half of \$5

5 50c coins in \$3

6 7 000 + 900 + 60 + 5

7 0.5 as a percentage

8 Is 4 629 < 6 429?

9 Quarters in $2\frac{3}{4}$

10 $\frac{2}{3}$ of 12

11 Number 100 after 35 801

12 Are 3 and 5 factors of 15?

13 2 squared

14 36 ÷ 6 + 3

15 Centimetres in $7\frac{1}{2}$ m

16 Perimeter of a rectangle 3 cm by 7 cm

17 Millilitres in $\frac{1}{4}$ L

18 Grams in $\frac{1}{4}$ kg

19 Days in December

20 Is 69° less than a right angle?

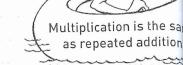
What is the perimeter of each shape?



1 92 plus 46

2 74 minus 39

3 35×6



147 ÷ 7

5 \$1.65 + \$3.70 + \$2.45

6 Place value of 4 in 34 600

7 Decimal for 5 units + 7 tenths + 9 hundredths

8 Is 67 954 > 76 945?

9 $2\frac{3}{5}$ as an improper fraction

10 $\frac{5}{10} + \frac{1}{10}$

11 Roman numeral for 500

12 List all the factors of 60

13 4² + 3

14 9 + 4 × 6 - 8

15 Metres in $1\frac{1}{4}$ km

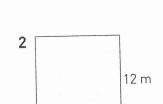
16 Area of a square with 6 cm sides

17 Litres in 1 255 mL

18 Kilograms in 1 750 g

19 Time 15 minutes after 6:42

20 Is 107° an acute angle?



12 m

e -

distance around the boundary of a two-dimensional shape.

4 cm
6 cm

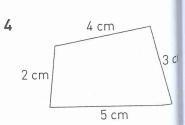
Perimeter = 6 + 4 + 6 + 4
= 20 cm

Perimeter is the

3 cm 4 cm 3.5 cm

6 cm

8 cm



C

1 234 + 65

2 196 - 47

3 316 × 10

4 609 divided by 3

5 \$10.00 - \$6.35

7 Decimal for 6 units + 6 tenths + 9 hundredths

50 000 + 4 000 + 600 + 80 + 2

8 Is 95 201 < 95 120?

9 $\frac{14}{3}$ as a mixed number

10 25% of 80

11 Number 500 before 29 387

12 First three multiples of 8

13 7² - 4

14 64 ÷ 8 × 3

15 Metres in $1\frac{3}{4}$ km

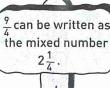
16 Area of a rectangle 5 m by 9 m

17 Litres in 1 750 mL

18 Kilograms in 2 250 g

19 Minutes from 12 to 7 until 23 past 7

20 Is 145° an obtuse angle?



n as per 1

1 Sum of 627 and 94

2 Difference between 943 and 76

3 72 × 100

4 679 ÷ 10

5 6.8 + 3.5 + 7.4

6 Place value of 7 in 174 569

 $\frac{7}{10}$ as a percentage

8 Round off 1 654 376 to nearest thousand

9 $\frac{17}{4}$ as a mixed number

10 $\frac{5}{8} - \frac{3}{8}$

11 Number 2 000 after 658 726

12 Are 3, 4, 6 and 7 all factors of 42?

13 Square root of 49

14 240, 280, 320,

15 Metres in 9.5 km

16 Name for perimeter of a circle

17 Millilitres in 8.5 L

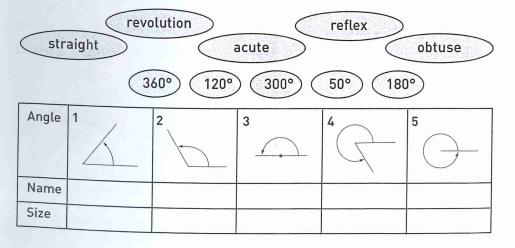
18 Tonnes in 7 000 kg

19 19:21 as 12-hour digital time

20 Are opposite sides of a rectangle parallel?



Use the labels and angle measurements to complete the table.





8 + 8 + 8 + 8

How many threes in 24?

20c coins in \$4

Place value of 5 in 3 562

60% as a decimal

Round off 4 763 to nearest hundred

9 Tenths in $2\frac{3}{10}$

10 $\frac{3}{10}$ of 40

0

0

0

11 Number after 13 469

12 Is 4 a factor of 26?

13 Next odd number after 1 797

14 35 + | = 97

15 Centimetres in $9\frac{1}{2}$ m

16 Perimeter of a square with 9 m sides

17 Litres in 4 500 mL

18 Grams in 3.5 kg

19 Days in June and July

20 Is 106° less than a right angle?

Excel Mental Maths Strategies Year 6 - Unit



35 + 16 + 43

164 - 58

 463×10

How many sixes in 126?

Cost of five at \$3.25 each

60 000 + 8 000 + 300 + 90 + 1 0.4 as a percentage

Is 87 569 closer to 87 000 or 88 000?

92 - 35

= 62 - 5

= 92 - 30 - 5

9 $3\frac{1}{3}$ as improper fraction

10 10% of 60

11 1 000 after 46 351

12 Is 39 a multiple of 6?

13 8² + 6

14 $7 + (3 \times 4) - 6$

15 Metres in $\frac{1}{4}$ km

16 Area of a square with 12 cm sides

17 Millilitres in 4.725 L

18 Grams in 3.625 kg

19 Minutes from 8:53 am to 9:46 am

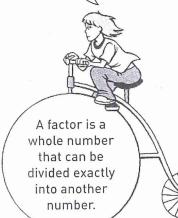
20 How many faces on a hexagonal prism?



In each row, circle the factors of the given products.

	_	Product								
1	6	7	4	8	3	15	9	16	2	36
2	8	5	4	3	7	15	12	9	17	45
3	3	2	9	6	5	8	18	4	17	64
4	5	4	7	16	2	9	15	13	12	92
5	6	5	9	4	2	17	3	16	15	105
6	8	2	6	3	5	4	12	10	21	124
7	9	3	5	2	10	6	15	13	16	156

A product is the answer when numbers are multiplied.



2 326 - 43 126×10

1 167 + 39

4 340 ÷ 10

C

Change from \$5 if \$3.45 is spent

Hundreds in 35 465

 $\frac{3}{10}$ as a decimal

Is 69 521 > 69 621?

 $\frac{16}{5}$ as a mixed number

10 10% of \$120

11 2 000 before 35 968

12 Average of 21, 32 and 25

13 3² + 3

14 $5 \times 3 + 6 \times 3$

15 Metres in $\frac{3}{7}$ km

16 Area of a rectangle 6 cm by 2 cm

17 Litres in 3 950 mL.

18 Kilograms in 7 355 g

19 16 minutes after 9:53 am

20 Is 180° a straight angle?

facts. $\frac{1}{1} = 0.25$ = 0.50

 $358 \div 10$ Cost of one if 6 cost \$8.70

 30×40

Sum of 34, 48 and 67

Numeral for sixty-four thousand and seventy

Answers on page A6

4 tenths 9 hundredths as a decimal

Difference between 523 and 98

Round off 3 861 459 to nearest million

9 Is $\frac{10}{12}$ the same as $\frac{5}{4}$?

11 Is -7 a negative number?

12 First 4 multiples of 8

13 Square root of 36

14 360, 450, 540,

15 Centimetres in 3.75 m

16 Perimeter of a square with 30 m sides

17 Litres in 4 250 mL

18 Tonnes in 4 750 kg

19 06:43 as analog time

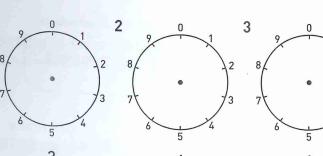
20 How many edges on a triangular prism?

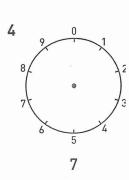


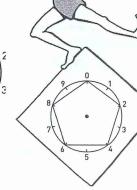
Some of the multiples of 8 are 8, 16, 24, 32, 40, 48. The unit digits are 8, 6, 4, 2, 0.

When joined in order, these make a unit digit pattern.

Draw the unit digit patterns for the multiples of 3, 4, 6 and 7.







Excel Mental Maths Strategies Year 6 - Unit 14

The unit digit

in 32 is 2.