Marshall Cavendish Cambridge Primary Mathematics (2nd edition)
Stage 6

Suggested Answers

Chapter 1 Place Value

(The following content has not been through the Cambridge Assessment International Education endorsement process.)

Student's Book

Section A

- Let's Learn

Pages 3-4

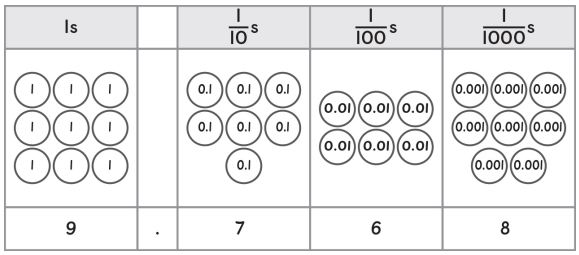
(a) In 0.001, the digit 1 is in the thousandths place.
1 one and 3 thousandths = 1.003

(c) 3 + 0.1 + 0.04 + 0.002 = 3.142.
In the number, the digit 2 is in the thousandths place.

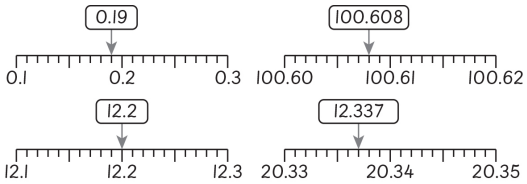
- Let's Practise

Pages 5-6

1. 8; 8 thousandths; 0.008



2. (a) 1; 9
   (b) 1; 6; 8
   (c) 2.2
   (d) 0.33



3. –0.007; 0.004
   Answers vary. For example: Count 7 markings on the left of 0 to get –0.007 and count 4 markings on the right of 0 to get 0.004.

4. TWM.01: Specialising
   Answers vary. For example:
   Option 1: Onions, potatoes, flour, papaya and apples
   Option 2: Watermelon, onions, flour and papaya

Section B

- Let's Learn

Pages 8-9

(a) 15 × 1000 = 15 000
The total mass of 15 boxes of sauce is 15 000 g.
986 ÷ 10 = 98.6

98 sachets of sauce can be made.
986 ÷ 100 = 9.86
9 bottles can be made.

(b) 4.38 × 1000 = 4380
The total mass of the 1000 balls is 4380 g.

- Let's Practise

Page 10

1. (a) 10.23
   (b) 0.474
   (c) 12 410
   (d) 2.5
   (e) 20 045
   (f) 0.32

2. (a) 0.029
   (b) 13.002
   (c) 101
   (d) 3239

3. TWM.08: Improving
   No. Ralph is not correct.
   45.93 × 1000 = 45 930 g, which is not the same as 45 039 g.
   Ralph should say: 1000 golf balls have a total mass of 45 930 g.

4. (a) 453.9 – 48.9 = 405 kg
   Mass of each ball bearing = 405 ÷ 1000 = 0.405 kg

   (b) Mass of 100 ball bearings = 0.405 × 100 = 40.5 kg
   Mass of empty box = 48.9 – 40.5 = 8.4 kg

Section C

- Let's Practise

Page 14

1. (a) 2
   (b) 3
   (c) 7
   (d) 10

2. (a) 0.7
   (b) 1.9
   (c) 2.6
   (d) 5.0
   TWM.06: Classifying
   b; c; a; d

3. Total mass
   = 1.39 + 1.59
   = 2.98 kg
   2.98 kg when rounded to the nearest tenth is 3.0 kg.

4. (a) TWM.04: Convincing
   When we round a number to the nearest whole number, we look at the tenths digit. If it is 5 tenths or more, we round up. So, the digit at the tenths place must be at least 5 and the least possible distance is 1.5 km.

   (b) 2.49 + 5.44 = 7.93 km
   7.93 km when rounded to the nearest tenth is 7.9 km.

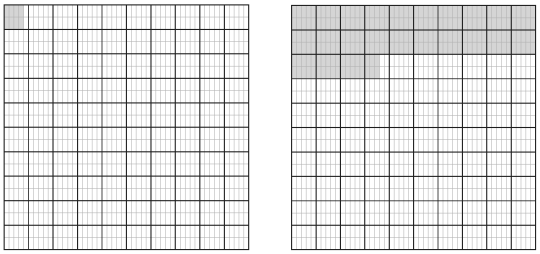
   (c) 5.35 – 2.49 = 2.86 km
   2.86 km when rounded to the nearest tenth is 2.9 km.
   TWM.07: Critiquing
   Answers vary. For example:

Difference: I find the greatest and least possible distances to 2 decimal places while my partner finds the distances to 3 decimal places.
Similarity: After finding the numbers with 2 decimal places or 3 decimal places, the rounded value is the same.

Activity Book

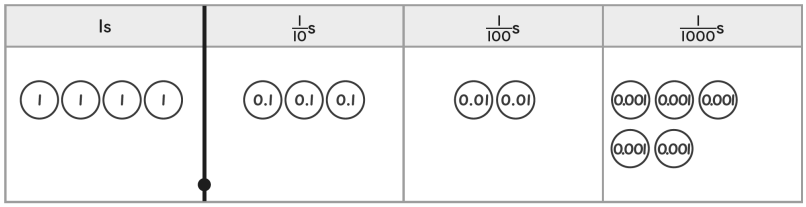
Section A

1.

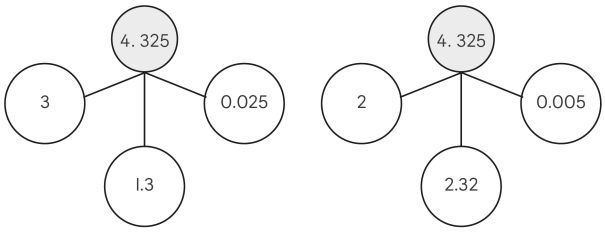


2. (a) 0.005; 4.325

(b)



(c) TWM.01: Specialising
Answers vary. For example:



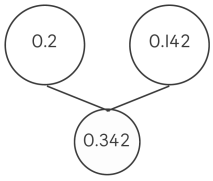
3. 0.202

4. (a) 1 hundredth + 2 thousandths = <u>0.012</u>
(b) 12.504 = 1 ten + 2 ones + <u>5</u> tenths + <u>4</u> thousandths
(c) 45 + 0.04 + 0.006 = <u>45.046</u>
(d) 128.105 = 100 + 28 + <u>0.105</u>

5. (a)

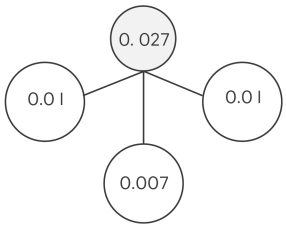
(b) TWM.01: Specialising
Answers vary. For example: –0.004.

6.



0.2 and 0.142 add up to 0.342, so the total distance is 0.342 m.

7.



0.027 can be regrouped as 0.01 + 0.007 + 0.01, so the mass of the third strawberry is 0.01 kg.

8. TWM.04: Convincing
No, he is not. It is smaller only when the number is positive. If the number is negative, the value of the digit in the thousandths place is greater than the value of the digit in the hundredths place.

Section B

1. (a) 72 × 1000 = <u>72 000</u>
When multiplying by 1000, the digits move <u>3</u> places to the <u>left</u>.

(b)

10s	1s	$\frac{1}{10}$s	$\frac{1}{100}$s	$\frac{1}{1000}$s
1	6			
	0	0	1	6

16 ÷ 1000 = <u>0.016</u>
When diving by 1000, the digits move <u>3</u> places to the <u>right</u>.

(c) 5.1 × 1000 = 5100

2.

×	10	100	1000
13	130	1300	13 000
1.6	16	160	1600
3.27	32.7	327	3270
0.481	4.81	48.1	481

÷	10	100	1000
6	0.6	0.06	0.006
23	2.3	0.23	0.023
370	37	3.7	0.37
781	78.1	7.81	0.781

3.

Statement	Correction
a 88.44 × 10 = 8844	88.44 × <u>100</u> = 8844 or 88.44 × 10 = <u>884.4</u>
b 111.2 ÷ 100 = 1.112	No errors
c 2.356 × 1000 = 2 356 000	2.356 × 1000 = <u>2356</u> or 2356 × 1000 = 2 356 000
d 132 ÷ 10 = 0.132	132 ÷ <u>1000</u> = 0.132 or 132 ÷ 10 = <u>13.2</u>

4. 2350 ÷ 1000 = 2.35 g
The mass of one capsule is 2.35 g.

5. Mass of one parcel
   = 1567 ÷ 1000
   = 1.567 kg
   Total mass of 100 parcels
   = 1.567 × 100
   = 156.7 kg

6. 1000 × 25 = 25 000
   He exchanged 25 000 baht.
   25 000 – 15 000 = 10 000
   10 000 × 0.04 = 400
   Minho got S$400 in the end.

Section C

1. 6; 7; 7; 6.3; 6.5; 6.8

2.

Runner	Timing (in min)	Nearest whole number	Nearest tenth
Henna	15.52	16	15.5
James	16.25	16	16.3
Anna	17.56	18	17.6
Harry	20.03	20	20.0

3. TWM.01: Specialising
   Answers vary. For example:
   Richard's mass could be 56.57 kg.
   Your answer could be different from your friend's, but the answers after rounding off are the same.

4. TWM.01: Specialising
   Answers vary. For example:
   2.74 + 3.18 = 5.92
   2.74 when rounded to the nearest tenth is 2.7.
   3.18 when rounded to the nearest whole number is 3.

5. TWM.01: Specialising
   Answers vary. For example:
   Ali has $5.02 and Maya has $4.98.