Multiple-choice section

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Answer | C | D | A | B | C | C | A | B | B | D | C | A |

Question 1 [4.1]

C

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ones | . | Tenths | Hundredths | Thousandths |
| 1 | . |  |  |  |
| 0 | . | 3 | 4 |  |

0.34 =

Question 2 [4.1]

D

Each interval is 0.01 so the arrow points to 1.06.

Question 3 [4.3]

A

 is 0.125 as a decimal when rounded to 2 decimal places is 0.13.

Question 4 [4.2]

B

3.688: The next digist is 8 so round up to 3.69.

Question 5 [4.3]

C

5.25 is 5 wholes and 25 hundredths



Question 6 [4.4]

C

A 0.36 + 0.62 = 0.98 B 0.49 + 0.41 = 0.9

C 1.3 – 0.29 = 1.01 D 1.2 – 0.3= 0.9

1.01 is closest to 1.

Question 7 [4.5]

A

2.4 × 0.2 = 0.48

Question 8 [4.7]

B

0.46 × 100% = 46%

Question 9 [4.8]

B



Question 10 [4.8]

D



Since she has 25% of the dolls, she needs to collect 75% to complete her set.

Question 11 [4.9]

C

2 dogs: 4 birds

= 2 : 4

= 1 : 2

Question 12 [4.10]

A

20 dogs : 15 kg of mince (÷ 5)

= 4 dogs : 3 kg (× 4)

= 16 dogs : 12 kg

Multiple-choice total marks: 12

Short answer section

Question 13 2 marks [4.3, 4.9]

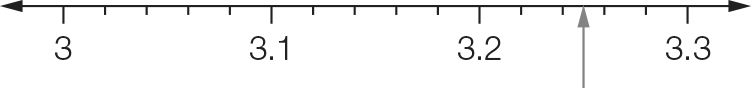
(a) To write a fraction as a decimal, you *divide* the numerator by the denominator.

(b) A *recurring* decimal is one that has a repeating pattern of digits.

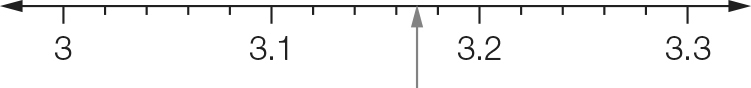
(c) A *ratio* is a comparison of two or more quantities using a ‘:’ symbol.

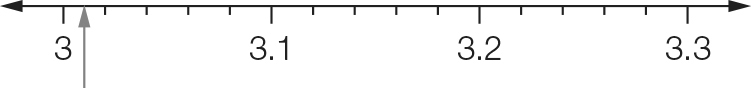
Question 14 3 marks [4.1]

(a)



(b)



(c)  


Question 15 2 marks [4.1]

(a) 4 tens, 3 tenths and 6 thousandths  


(b) 

Question 16 3 marks [4.1]

(a) 506 > 50.6

(b) 0.0345 > 0.03045

(c) 4.567 < 4.5671

Question 17 2 marks [4.1]

(a) 3.021, 3.12, 3.21 (b) 0.00574, 0.05074, 0.0574

Question 18 3 marks [4.2, 4.4]

(a) He would pay $1.65.

(b) He would get $3.35 change:  
$5 – $1.65 = $3.35

Question 19 3 marks [4.2]

(a) 45.675 = 45.7 (1 d.p.)  
rounding up as 5 is next digit

(b) 0.4734 = 0.47 (2 d.p.)  
no rounding as 3 is next digit

(c) 1.3758 = 1.376 (3 d.p.)

Question 20 7 marks [4.7]

|  |  |  |
| --- | --- | --- |
| Fraction | Decimal | Percentage |
|  | 0.1 | 10% |
|  | 0.5 | 50% |
|  | 0.25 | 25% |
|  | 0.2 | 20% |
|  | 0.125 | 12.5% |
|  | 1.6 | 160% |
|  | 0.333... |  |
|  | 0.075 | 7.5% |

Question 21 2 marks [4.3]

(a)  (b) 

Question 22 4 marks [4.4]

|  |  |
| --- | --- |
| (a) 6 . 0 0 0  0 . 0 0 7 + 1 . 21 3 6  7 . 2 4 3 | (b) 2 . 3 4 0  + 0 . 5 7 6  2 . 9 1 6 |

Question 23 4 marks [4.4]

(a) 1.365 – 0.234 = 1.131 (b) 23.4 – 6.751 = 16.649

Question 24 3 marks [4.5]

(a) 35.78 × 100 = 3578

(b) 0.034 × 7 = 0.238  
(34 × 7 = 238)

(c) 12.5 × 300  
= 12.5 × 3 × 100  
= 37.5 × 100  
= 3750

Question 25 4 marks [4.5]

(a) 0.4 × 0.7 = 0.28  
(4 × 7 = 28)  
There are 2 decimal places in question, so there are 2 decimal places in the answer.

(b) 0.56 × 0.03 = 0.0168  
(56 × 3 = 168)  
There are 4 decimal places in question, so there are 4 decimal places in the answer.

Question 26 6 marks [4.6]

|  |  |  |
| --- | --- | --- |
| (a) 36.63 ÷ 10 000 = 0.003 663 | (b) 2.4 ÷ 8 = 0.3 | (c) 0.0566 ÷ 4 = 0.01415 |

Question 27 4 marks [4.6]

|  |  |
| --- | --- |
| (a) 7.2 ÷ 90 = 7.2 ÷ 9 ÷ 10 = 0.8 ÷ 10 = 0.08 | (b) 4.5 ÷ 0.09 = 450 ÷ 9 = 50 |

Question 28 4 marks [4.6]

|  |  |
| --- | --- |
| (a) | (b) |

Question 29 2 marks [4.8]



Question 30 4 marks [4.9]

|  |  |
| --- | --- |
| (a) 3 : 5 (× 4) = 12 : 20 (÷ 2) = 6 : 10 | (b) 1 : 5 : 7 (× 5) = 5 : 25 : 35 |

Question 31 4 marks [4.10]

|  |  |
| --- | --- |
| (a) $4200 to pave 60 m2 (÷ 10) = $420 to pave 6 m2 (× 2) = $840 to pave 12 m2 | (b) 2.5 minutes to fill a 6 L bucket = 150 seconds to fill a 6 L bucket (÷ 3) = 50 seconds to fill a 2 L bucket |

Short answer total: 67

Extended answer section

Question 32 9 marks [4.4, 4.5, 4.6, 4.8, 4.9]

(a) 16.06 – 0.13 = 15.93 seconds

(b) Average time = (total of times) ÷ 4  
16.34 + 16.06 + 15.93 + 16.19 = 64.52  
  
The average time she ran was 16.13 seconds.

(c) Total number of serves is 3 + 1 + 2 + 1 + 1 = 8  
One serve: 

The breakfast serving size: 3 × 1437.5 = 4312.5 kJ

(d) breakfast intake : lunch intake  
= 3 : 2

(e)    
 1 0 7   
 × 7 5  
 5 3 5  
7 4 9 0  
8 0 2 5

Question 33 9 marks [4.5, 4.6, 4.7]

(a) 300 g flour: 150 g butter  
= 300 : 150  
= 2 : 1

(b) total of all ingredients: 300 + 150 = 450 g  
flour: 300 g  


(c) flour : butter : water  
300 g : 150 g : 3 tbl (÷ 3)  
100 g : 50 g : 1 tbl (× 4.5)   
450 g : 225 g : 4.5 tbl  
225g butter and 4.5 tablespoons water

(d) (i) Sample answer  
For 100 g flour, 50 g butter, 1 tbl water:  
1 tbl water no cost

100 g flour $0.10  
50 g butter $0.28 (half of unit price)  
Total: 150 g pastry for $0.38

150 g ready made costs 1.5 × $0.40 = $0.60  
Saving: $0.60 – $0.38 = $0.22

(ii) For 150 g pastry:  
Saving amount: $0.22; Cost of ready made pastry: $0.60  
Using cents: save 22 cents out of 60 cents  
 (2 d.p.)

Extended answer total: 18

TOTAL test marks: 97