4.1 Reasoning: Fractions, Decimals and Percentages: 30-minute Pack

STA KS2 National Curriculum Mathematics - STA Reasoning Test Framework · Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Work out (1/4 + 1/6) x 0.5. Give your answer as a fraction in its simplest form.

(3)

2 A charity raised money over three days. On day 1 they raised 3/8 of the total amount. On day 2 they raised 25% of the total amount. On day 3 they raised the remaining £90. Work out the total amount raised.

(4)

3 Work out 1/2 + 2/5.

Give your answer in its simplest form.

Answer: ___

(1)

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4 What percentage of 25 is 24?

Answer: ___ %

(2)

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5 In a sale, a toy costs £150. The price is reduced by 25%.

What is the sale price?

Answer: £___

(3)

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6 Write 4 5/8 as an improper fraction.

Answer: ___

(2)

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7 Round 390.88 to the nearest whole number.

Answer: ___

(1)

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8 5/8 = ___/16

Answer: ___

(1)

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9 Write these fractions with a common denominator, then order them from smallest to largest: 2/3, 5/6, 7/12

(2)

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10 In a survey of 60 people, 3/10 preferred tea, 45% preferred coffee, and the rest preferred juice. How many more people preferred coffee than tea?

(3)

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11 Write <, > or = in the box.

1/2 [ ] 4/5

Answer: ___

(2)

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12 Write these decimals in order, starting with the largest.

1.532, 1.783, 1.042, 0.939

Answer: ___

(1)

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Mark scheme · 4.1 Reasoning: Fractions, Decimals and Percentages: 30-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

converts to a common denominator: 1/4 = 3/12, 1/6 = 2/12, sum = 5/12 oe	M1
multiplies 5/12 by 0.5 (= 1/2), ft from a correct sum	dM1
5/24 oe cao (in simplest form)	A1

Answer: **5/24**

Question 2

converts 25% to 1/4 (or 2/8), to compare with eighths oe	M1
days 1 and 2 together = 3/8 + 2/8 = 5/8 of the total oe	M1
day 3 fraction = 1 - 5/8 = 3/8, so 3/8 of the total = £90, ft from a correct fraction	dM1
£240 cao	A1

Answer: **£240**

Question 3

9/10 cao	B1

Answer: **9/10**

Question 4

fraction as a percentage	M1
96% cao	A1

Answer: **96%**

Question 5

reduction found	M1
subtracts from the original price	M1
£112.50 cao	A1

Answer: **£112.50**

Question 6

method seen	M1
37/8 cao	A1

Answer: **37/8**

Question 7

391 cao	B1

Answer: **391**

Question 8

10 cao	B1

Answer: **10**

Question 9

converts to twelfths: 8/12, 10/12, 7/12 oe	M1
7/12, 2/3, 5/6 cao (correct order using original fractions)	A1

Answer: **7/12, 2/3, 5/6**

Question 10

3/10 of 60 = 18 (tea) oe	M1
45% of 60 = 27 (coffee) oe, ft	M1
9 cao	A1

Answer: **9**

Question 11

common denominator seen	M1
< cao	A1

Answer: **<**

Question 12

1.783, 1.532, 1.042, 0.939 cao	B1

Answer: **1.783, 1.532, 1.042, 0.939**

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