4.2 Decimals and Percentages: 30-minute Pack

NCETM KS2 National Curriculum Mathematics - NCETM Teaching for Mastery Framework · Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 After a 20% increase, the price of a bike is £108. Work out the original price of the bike.

(3)

2 A charity shop sells books at £1.20 each and DVDs at £2.75 each.

(a) Zara buys 3 books and 2 DVDs. Work out the total cost. **(2)**

(b) She pays with a £20 note. How much change does she receive? **(1)**

(c) The shop then reduces all prices by 10% for a sale. Work out the new price of a DVD, giving your answer to the nearest penny. **(3)**

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

1.14, 1.54, 1.84, 1.32

Answer: ___

(1)

---

4 18.11 + 9.66 =

Answer: ___

(1)

---

5 A ball costs £11.21 and a apple costs £2.34. Kiran pays with a £15 note.

How much change does Kiran get?

Answer: £___

(2)

---

6 55.2 x 4 =

Answer: ___

(1)

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7 Write these decimals in order, starting with the smallest.

3.64, 3.66, 3.06, 3.72

Answer: ___

(1)

---

8 Write 0.7 as a fraction in its simplest form.

Answer: ___

(1)

---

9 What is the value of the digit 1 in 4.219?

Answer: ___

(1)

---

10 21.87 - 6.58 =

Answer: ___

(1)

---

11 Work out 25% of 120 kg.

Answer: ___

(1)

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12 A ribbon is 2.35 metres long. Calculate the total length of 6 identical ribbons placed end to end.

(2)

---

13 Round 66,594 to the nearest hundred.

Answer: ___

(1)

---

14 Jamal says: "0.45 is bigger than 0.5 because 45 is bigger than 5." Is Jamal correct? Explain your answer.

(2)

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15 Write these in order, smallest first.

60%, 0.65, 3/4

Answer: ___

(1)

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Mark scheme · 4.2 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

recognises £108 represents 120% of the original price oe	M1
finds 1% = 108 / 120 = 0.9, or equivalent method (e.g. 108 / 1.2), ft	M1
£90 cao	A1

Answer: **£90**

Question 2

(a) 3 x 1.20 = 3.60 and 2 x 2.75 = 5.50 oe	M1
(a) £9.10 cao	A1
(a) Answer: **£9.10**	
(b) £10.90 cao, ft from part (a)	B1
(b) Answer: **£10.90**	
(c) 10% of 2.75 = 0.275 oe	M1
(c) 2.75 - 0.275 = 2.475, ft	M1
(c) £2.48 awrt (rounds 2.475 to the nearest penny)	A1

(c) Answer: **£2.48**

Question 3

1.84, 1.54, 1.32, 1.14 cao	B1

Answer: **1.84, 1.54, 1.32, 1.14**

Question 4

27.77 cao	B1

Answer: **27.77**

Question 5

13.55 seen	M1
£1.45 cao	A1

Answer: **£1.45**

Question 6

220.8 cao	B1

Answer: **220.8**

Question 7

3.06, 3.64, 3.66, 3.72 cao	B1

Answer: **3.06, 3.64, 3.66, 3.72**

Question 8

7/10 cao	B1

Answer: **7/10**

Question 9

0.01 cao	B1

Answer: **0.01**

Question 10

15.29 cao	B1

Answer: **15.29**

Question 11

30 kg cao	B1

Answer: **30 kg**

Question 12

sets up 2.35 x 6 oe	M1
14.1 m cao	A1

Answer: **14.1 m**

Question 13

66,600 cao	B1

Answer: **66,600**

Question 14

states Jamal is incorrect (0.5 is bigger than 0.45)	B1
valid explanation using equal place value, e.g. 0.5 = 0.50, and 50 hundredths is more than 45 hundredths oe	B1

Answer: **No, Jamal is incorrect. 0.5 = 0.50, and 0.50 is bigger than 0.45, so 0.5 is bigger than 0.45.**

Question 15

60%, 0.65, 3/4 cao	B1

Answer: **60%, 0.65, 3/4**

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