2.6-2 Ratio and Proportion: Practice Set 2: 10-minute Pack

Total Marks

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Simplify the ratio 16 : 20 to its simplest form.

- ☐ A) 4 : 5
- ☐ B) 8 : 10
- ☐ C) 4 : 6
- ☐ D) 3 : 4
- ☐ E) 5 : 4

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2 A box contains 9 yellow buttons and 15 pink buttons. Write the ratio of yellow buttons to pink buttons in its simplest form.

- ☐ A) 5 : 3
- ☐ B) 3 : 4
- ☐ C) 1 : 2
- ☐ D) 9 : 15
- ☐ E) 3 : 5

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3 Complete the missing number: 4 : 9 = 20 : ___

- ☐ A) 25
- ☐ B) 36
- ☐ C) 40
- ☐ D) 45
- ☐ E) 50

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4 Which of these ratios is NOT equivalent to 5 : 6?

- [ ] A) 10 : 12
- [ ] B) 15 : 18
- [ ] C) 25 : 30
- [ ] D) 20 : 23
- [ ] E) 35 : 42

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5 1 mile is equivalent to 8/5 km. Convert a distance of 35 miles into kilometres.

- [ ] A) 56 km
- [ ] B) 70 km
- [ ] C) 43.75 km
- [ ] D) 21.9 km
- [ ] E) 50 km

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6 Zainab and Callum share 54 sweets in the ratio 2 : 7. Calculate how many sweets Zainab receives.

- [ ] A) 6
- [ ] B) 12
- [ ] C) 18
- [ ] D) 42
- [ ] E) 48

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7 There are 42 pupils in a class. The ratio of pupils who prefer maths to those who prefer art is 4 : 3. Calculate the number of pupils who prefer art.

- [ ] A) 6
- [ ] B) 12
- [ ] C) 30
- [ ] D) 24
- [ ] E) 18

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8 Shop C sells 5 bars of soap for £2.75. Shop D sells 8 bars of soap for £4.00. Work out which shop offers better value for money, showing your working.

(3)

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9 It takes 6 machines working at the same constant rate 10 hours to complete a production run. Calculate how long it would take 4 machines, working at the same rate, to complete an identical production run.

- ☐ A) 24 hours
- ☐ B) 15 hours
- ☐ C) 12 hours
- ☐ D) 6.67 hours
- ☐ E) 6 hours

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Mark scheme · 2.6-2 Ratio and Proportion: Practice Set 2: 10-minute Pack

Question 1

A (4:5) cao **B1**

Answer: 4 : 5

Question 2

E (3:5) cao **B1**

Answer: 3 : 5

Question 3

D (45) cao **B1**

Answer: 45

Question 4

D (20:23) cao **B1**

Answer: D) 20 : 23

Question 5

A (56 km) cao **B1**

Answer: 56 km

Question 6

B (12) cao **B1**

Answer: 12

Question 7

E (18) cao **B1**

Answer: 18

Question 8

price per bar at Shop C found: 2.75/5 = 0.55 **M1**

price per bar at Shop D found: 4.00/8 = 0.50 **M1**

Shop D offers better value (cao, since £0.50 per bar is less than £0.55 per bar) **A1**

Answer: Shop D (£0.50 per bar versus £0.55 per bar at Shop C)

Question 9

B (15 hours) cao **B1**

Answer: 15 hours

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