2.73 Adding and Subtracting Fractions with Unlike Denominators: Test Pack

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 20 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 What is 1/2 + 1/3?

- ☐ A) 1/5
- ☐ B) 2/5
- ☐ C) 5/6
- ☐ D) 1
- ☐ E) 5/9

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2 What is 5/6 + 1/2? Give your answer as a mixed number if needed.

- ☐ A) 5/3
- ☐ B) 1 1/3
- ☐ C) 7/6
- ☐ D) 6/6
- ☐ E) 5/12

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3 Add 3 2/5 and 1 3/10. Give your answer as a mixed number.

- ☐ A) 4 7/10
- ☐ B) 5 1/2
- ☐ C) 4 1/2
- ☐ D) 4 13/10
- ☐ E) 3 11/10

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4 A ribbon is 1 1/2 m long. A piece of 2/3 m is cut from it. How much ribbon is left? Give your answer in simplest form.

(2)

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5 A water tank was 4 2/5 full. After some water was used it was 2 7/10 full. How much water was used? Give your answer as a mixed number in simplest form.

(3)

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6 Ravi eats 5/8 of a pizza and a friend eats 2/5 of the same pizza. What fraction of the pizza has been eaten?

- ☐ A) 7/40
- ☐ B) 7/13
- ☐ C) 7/8
- ☐ D) 1 1/40
- ☐ E) 1/4

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7 Isla eats 3/4 of a pizza and a friend eats 3/5 of the same pizza. What fraction of the pizza has been eaten?

- ☐ A) 1 7/20
- ☐ B) 3/10
- ☐ C) 1 1/5
- ☐ D) 9/20
- ☐ E) 2/3

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8 Declan eats 2/3 of a pizza and a friend eats 1/2 of the same pizza. What fraction of the pizza has been eaten?

- ☐ A) 1/2
- ☐ B) 1/3
- ☐ C) 1 1/6
- ☐ D) 3/5
- ☐ E) 1

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9 Maya eats 3/4 of a pizza and a friend eats 1/2 of the same pizza. What fraction of the pizza has been eaten?

- [ ] A) 1
- [ ] B) 1 1/4
- [ ] C) 1/2
- [ ] D) 2/3
- [ ] E) 3/8

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10 Lily eats 3/10 of a pizza and a friend eats 1/3 of the same pizza. What fraction of the pizza has been eaten?

- [ ] A) 1/10
- [ ] B) 2/5
- [ ] C) 2/15
- [ ] D) 19/30
- [ ] E) 4/13

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11 A jug is 5/12 full. Isla pours out 1/3 of the jug. What fraction of the jug is now full?

- [ ] A) 4/9
- [ ] B) 1/3
- [ ] C) 1/9
- [ ] D) 5/36
- [ ] E) 1/12

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12 A jug is 2/5 full. Rhys pours out 1/4 of the jug. What fraction of the jug is now full?

- [ ] A) 1/5
- [ ] B) 1
- [ ] C) 1/20
- [ ] D) 1/10
- [ ] E) 3/20

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13 A jug is 3/8 full. Aisha pours out 1/3 of the jug. What fraction of the jug is now full?

- [ ] A) 1/12
- [ ] B) 2/5
- [ ] C) 1/8
- [ ] D) 1/24
- [ ] E) 1/4

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14 Fatima eats 1/2 of a pizza and a friend eats 3/4 of the same pizza. What fraction of the pizza has been eaten?

- [ ] A) 1
- [ ] B) 1 1/4
- [ ] C) 1/2
- [ ] D) 2/3
- [ ] E) 3/8

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15 Noah eats 1/5 of a pizza and a friend eats 1/2 of the same pizza. What fraction of the pizza has been eaten?

- [ ] A) 1/10
- [ ] B) 7/10
- [ ] C) 2/5
- [ ] D) 1/5
- [ ] E) 2/7

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16 Chloe eats 1/2 of a pizza and a friend eats 1/3 of the same pizza. What fraction of the pizza has been eaten?

- [ ] A) 1/6
- [ ] B) 2/3
- [ ] C) 2/5
- [ ] D) 1/3
- [ ] E) 5/6

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17 Esme eats 1/10 of a pizza and a friend eats 1/4 of the same pizza. What fraction of the pizza has been eaten?

- [ ] A) 1/7
- [ ] B) 1/10
- [ ] C) 1/40
- [ ] D) 7/20
- [ ] E) 1/20

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18 Grace eats 9/10 of a pizza and a friend eats 1/6 of the same pizza. What fraction of the pizza has been eaten?

- [ ] A) 1 1/15
- [ ] B) 1/3
- [ ] C) 1/6
- [ ] D) 5/8
- [ ] E) 3/20

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Mark scheme · 2.73 Adding and Subtracting Fractions with Unlike Denominators: Test Pack

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

Question 1

correct option C (5/6) cao **B1**

Answer: C) 5/6 (since 1/2 = 3/6 and 1/3 = 2/6, 3/6 + 2/6 = 5/6).

Question 2

correct option B (1 1/3) cao **B1**

Answer: B) 1 1/3 (5/6 + 1/2 = 5/6 + 3/6 = 8/6 = 1 2/6 = 1 1/3).

Question 3

correct option A (4 7/10) cao **B1**

Answer: A) 4 7/10 (3 2/5 = 3 4/10; 3/10 added gives 4 7/10).

Question 4

Convert to improper or common denominator (1 1/2 = 3/2; 3/2 - 2/3 with common denom 6 shown) or equivalent **M1**

5/6 m cao **A1**

Answer: 5/6 m.

Question 5

Convert mixed numbers or use common denominator (4 2/5 = 4 4/10, 2 7/10) or equivalent shown **M1**

Subtraction carried out correctly (4 4/10 - 2 7/10 or improper fraction method) seen **M1**

1 7/10 cao **A1**

Answer: 1 7/10 (since 4 2/5 - 2 7/10 = 4 4/10 - 2 7/10 = 1 7/10).

Question 6

correct option D (1 1/40) cao; common denominator 40 **B1**

Answer: D) 1 1/40

Question 7

correct option A (1 7/20) cao; common denominator 20 **B1**

Answer: A) 1 7/20

Question 8

correct option C (1 1/6) cao; common denominator 6 **B1**

Answer: C) 1 1/6

Question 9

correct option B (1 1/4) cao; common denominator 4 **B1**

Answer: B) 1 1/4

Question 10

correct option D (19/30) cao; common denominator 30 **B1**

Answer: D) 19/30

Question 11

correct option E (1/12) cao; common denominator 12 **B1**

Answer: E) 1/12

Question 12

correct option E (3/20) cao; common denominator 20 **B1**

Answer: E) 3/20

Question 13

correct option D (1/24) cao; common denominator 24 **B1**

Answer: D) 1/24

Question 14

correct option B (1 1/4) cao; common denominator 4 **B1**

Answer: B) 1 1/4

Question 15

correct option B (7/10) cao; common denominator 10 **B1**

Answer: B) 7/10

Question 16

correct option E (5/6) cao; common denominator 6 **B1**

Answer: E) 5/6

Question 17

correct option D (7/20) cao; common denominator 20 **B1**

Answer: D) 7/20

Question 18

correct option A (1 1/15) cao; common denominator 30 **B1**

Answer: A) 1 1/15

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