

Answers - Add and Subtract Fractions Book 3

Improper Fractions

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Q2: a. $\frac{3}{4} + \frac{3}{4} + \frac{3}{4} = \frac{9}{4} = 2 \frac{1}{4}$

Q3: a. $\frac{3}{5} + \frac{3}{5} + \frac{3}{5} = \frac{9}{5} = 1 \frac{4}{5}$

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Q1: a. 3; b. A $\frac{4}{5}$ B $\frac{4}{5}$ C $\frac{3}{5}$

c. $\frac{4}{5} + \frac{4}{5} + \frac{3}{5} = \frac{11}{5}$; e. $2 \frac{1}{5}$

Q2: a. 4; b. A $\frac{2}{3}$ B $\frac{2}{3}$ C $\frac{2}{3}$ D $\frac{1}{3}$

c. $\frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{1}{3} = \frac{7}{3}$; d. 2; e. $\frac{1}{3}$; f. $2 \frac{1}{3}$

Q3: a. $\frac{3}{4}$; $\frac{3}{4}$

b. $\frac{3}{4} + \frac{3}{4} = \frac{6}{4}$; c. $1 \frac{2}{4}$; d. 1

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Q2: a. 2 halves in 1 whole. b. 4 halves in 2 whole.

c. 3 halves; d. 5 halves;

e. 7 halves; f. 11 halves;

g. 17 halves; h. 21 halves.

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Q1: a. 3 thirds in 1 whole. b. 6 thirds in 2 whole.

c. 5 thirds; d. 7 thirds;

e. 11 thirds.

Q2: a. 4 quarters; b. 8 quarters;

c. 5 quarters; d. 11 quarters;

e. 15 quarters.

Q3: a. 41 quarters; b. 43 quarters;

c. 32 thirds; d. 47 thirds.

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<p>Page 8</p> <p>Q1: a. $4\frac{2}{3} = \frac{14}{3}$; b. $3\frac{1}{3} = \frac{10}{3}$;</p> <p> c. $1\frac{7}{10} = \frac{17}{10}$; d. $2\frac{4}{5} = \frac{14}{5}$.</p> <p>Q2: a. $2\frac{5}{8} = \frac{21}{8}$; b. $2\frac{5}{6} = \frac{17}{6}$;</p> <p> c. $1\frac{7}{9} = \frac{16}{9}$; d. $2\frac{4}{7} = \frac{18}{7}$</p>	<p>Page 9</p> <p>Q1: a. $3\frac{3}{4} = \frac{15}{4}$; b. $2\frac{3}{4} = \frac{11}{4}$;</p> <p> c. $3\frac{2}{3} = \frac{11}{3}$; d. $3\frac{2}{5} = \frac{17}{5}$;</p> <p> e. $3\frac{1}{6} = \frac{19}{6}$</p> <p>Q2: a. $4\frac{1}{3} = \frac{13}{3}$; b. $3\frac{1}{5} = \frac{16}{5}$;</p> <p> c. $2\frac{3}{5} = \frac{13}{5}$; d. $5\frac{1}{4} = \frac{21}{4}$</p>
<p>Page 10</p> <p>Q2: a. 2 halves; b. 4 halves; c. 3 halves;</p> <p> d. $\frac{3}{2}$; e. 5 halves; f. $\frac{5}{2}$; g. $\frac{15}{2}$</p>	<p>Page 11</p> <p>Q1: a. 10; b. 20; c. 14; d. 28</p> <p>Q2: a. 4 quarters; b. 8 quarters; c. 6 quarters;</p> <p> d. $\frac{5}{4}$; e. 11 quarters; f. $\frac{11}{4}$; g. $\frac{23}{4}$</p>
<p>Page 12</p> <p>Q2: a. i. $1\frac{1}{2}$; ii. $2\frac{1}{2}$; iii. $4\frac{1}{2}$;</p> <p> iv. $5\frac{1}{2}$; v. $7\frac{1}{2}$; vi. $12\frac{1}{2}$.</p> <p>Q2: b. i. $1\frac{2}{3}$; ii. $2\frac{2}{3}$; iii. $3\frac{1}{3}$;</p> <p> iv. $5\frac{1}{3}$; v. $8\frac{1}{3}$; vi. $10\frac{2}{3}$.</p> <p>Q2: c. i. $1\frac{3}{4}$; ii. $2\frac{1}{4}$; iii. $2\frac{3}{4}$;</p> <p> iv. $5\frac{1}{4}$; v. $8\frac{3}{4}$; vi. $9\frac{3}{4}$</p>	<p>Page 13</p> <p>Q1: a. $1\frac{2}{5}$; b. $1\frac{5}{6}$; c. $1\frac{2}{7}$;</p> <p> d. $1\frac{4}{5}$; e. $2\frac{5}{6}$; f. $2\frac{5}{7}$;</p> <p> g. $3\frac{4}{5}$; h. $5\frac{1}{6}$; i. $3\frac{6}{7}$;</p> <p> j. $8\frac{3}{5}$; k. $8\frac{1}{6}$; l. $6\frac{3}{7}$;</p> <p> m. $10\frac{1}{5}$; n. $9\frac{5}{6}$; o. $7\frac{6}{7}$;</p> <p> p. $11\frac{1}{5}$; q. $11\frac{1}{6}$; r. $9\frac{3}{7}$</p>
<p>Page 14</p> <p>Q1: a. $\frac{8}{5} = 1\frac{3}{5}$; b. $\frac{7}{5} = 1\frac{2}{5}$; c. $\frac{10}{7} = 1\frac{3}{7}$;</p> <p> d. $\frac{12}{7} = 1\frac{5}{7}$; e. $\frac{11}{9} = 1\frac{2}{9}$; f. $\frac{15}{9} = 1\frac{6}{9}$;</p> <p> g. $\frac{4}{3} = 1\frac{1}{3}$; h. $\frac{10}{6} = 1\frac{4}{6}$; i. $\frac{14}{8} = 1\frac{6}{8}$;</p> <p> j. $\frac{11}{11} = 1$</p>	<p>Page 15</p> <p>Q1: a. $\frac{17}{7} = 2\frac{3}{7}$; b. $\frac{23}{7} = 3\frac{2}{7}$; c. $\frac{19}{8} = 2\frac{3}{8}$;</p> <p> d. $\frac{25}{8} = 3\frac{1}{8}$; e. $\frac{22}{9} = 2\frac{4}{9}$; f. $\frac{28}{9} = 3\frac{1}{9}$;</p> <p> g. $\frac{11}{6} = 1\frac{5}{6}$; h. $\frac{31}{6} = 5\frac{1}{6}$; i. $\frac{21}{10} = 2\frac{1}{10}$;</p> <p> j. $\frac{37}{10} = 3\frac{7}{10}$</p>

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Q1: a. $\frac{3}{4} + \frac{1}{4} + \frac{3}{4} + \frac{1}{4} = \frac{8}{4} = 2 \text{ cm}$

b. $\frac{3}{5} + \frac{3}{5} + \frac{4}{5} + \frac{4}{5} = \frac{14}{5} = 2\frac{4}{5} \text{ cm}$

Q2: a. $\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4} = \frac{12}{4} = 3 \text{ cm}$

b. $\frac{3}{8} + \frac{3}{8} + \frac{3}{8} + \frac{3}{8} = \frac{12}{8} = 1\frac{4}{8} = 1\frac{1}{2} \text{ cm}$

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Q1: a. $\frac{18}{7} = 2\frac{4}{7}$; b. $\frac{20}{7} = 2\frac{6}{7}$; c. $\frac{21}{8} = 2\frac{5}{8}$;

d. $\frac{13}{8} = 1\frac{5}{8}$; e. $\frac{23}{9} = 2\frac{5}{9}$; f. $\frac{28}{9} = 3\frac{1}{9}$;

g. $\frac{13}{6} = 2\frac{1}{6}$; h. $\frac{41}{6} = 6\frac{5}{6}$; i. $\frac{37}{10} = 3\frac{7}{10}$;

j. $\frac{53}{10} = 5\frac{3}{10}$

Q2: a. 3 m; b. $2\frac{1}{4} \text{ m}$; c. 4 m; d. $3\frac{1}{2} \text{ m}$;

e. 5 m; f. $6\frac{1}{3} \text{ m}$

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Q1: a. i. $\frac{3}{5} + \frac{3}{5} + \frac{3}{5} = \frac{9}{5} = 1\frac{4}{5} \text{ m}$;

ii. $\frac{2}{5} + \frac{3}{5} + \frac{4}{5} = \frac{9}{5} = 1\frac{4}{5} \text{ m}$;

iii. $\frac{3}{5} + \frac{4}{5} + \frac{4}{5} = \frac{11}{5} = 2\frac{1}{5} \text{ m}$

b. i. Equilateral; ii. Right angle; iii. Isosceles.

Q2: a. $\frac{2}{5} \times 5 = 2 \text{ m}$; b. $\frac{5}{6} \times 6 = 5 \text{ m}$

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Q1: a. $\frac{9}{7} = 1\frac{2}{7}$; b. $\frac{29}{7} = 4\frac{1}{7}$; c. $\frac{11}{8} = 1\frac{3}{8}$;

d. $\frac{17}{8} = 2\frac{1}{8}$; e. $\frac{14}{9} = 1\frac{5}{9}$; f. $\frac{19}{9} = 2\frac{1}{9}$;

g. $\frac{25}{6} = 4\frac{1}{6}$; h. $\frac{13}{6} = 2\frac{1}{6}$; i. $\frac{23}{10} = 2\frac{3}{10}$;

j. $\frac{43}{10} = 4\frac{3}{10}$

Q2: a. 6 m; b. $2\frac{3}{5} \text{ m}$; c. 5 m; d. $5\frac{1}{3} \text{ m}$;

e. 9 m; f. $3\frac{1}{6} \text{ m}$

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Q2: a. $2\frac{1}{2} \text{ cm} = 25 \text{ mm}$; b. $1\frac{3}{4} \text{ m} = 175 \text{ cm}$;

c. $2\frac{1}{4} \text{ m} = 225 \text{ cm}$; d. 5 cm = 50 mm;

e. 3 km = 3000 m; f. 145 cm

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Q1: $1\frac{1}{3} + \frac{2}{6} = 1\frac{2}{3}$

Q2: a. $1\frac{1}{2} + 1\frac{3}{4} = 3\frac{1}{4}$ is the total walking distance.

b. $2\frac{1}{2} + 2\frac{1}{4} + \frac{3}{4} = 5\frac{1}{2}$; c. $2\frac{1}{2} - \frac{3}{4} = 1\frac{3}{4}$

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Q1: a. $1\frac{1}{3} + 1\frac{1}{3} + \frac{4}{5} + \frac{4}{5} = 4\frac{4}{15} \text{ cm}$;

b. $1\frac{3}{4} \times 4 = 7 \text{ cm}$

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Q1: $1\frac{2}{5} + 2\frac{9}{10} = 3\frac{13}{10} = 4\frac{3}{10}$

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<p>Page 22</p> <p>Q2: a. 2 m = 200 cm; b. $6\frac{1}{2}$ cm = 65 mm;</p> <p> c. $2\frac{1}{2}$ m = 250 cm; d. 3 km = 3000 m;</p> <p> e. 5 km = 5000 m; f. 75 cm</p>	<p>Page 23</p> <p>Q2: a. $2\frac{1}{4} + 1\frac{2}{3} = 3\frac{11}{12}$ miles;</p> <p> b. $1\frac{1}{4} + 1\frac{5}{8} + \frac{6}{8} = 3\frac{5}{8}$ km;</p> <p> c. $1\frac{5}{8} - \frac{6}{8} = \frac{13}{8} - \frac{6}{8} = \frac{7}{8}$</p>
<p>Page 24</p> <p>Q1: a. 5 cm; b. $10\frac{2}{5}$;</p> <p>Q2: a. 1 km = 1000 m; b. $4\frac{9}{10}$ m = 490 cm;</p> <p> c. $3\frac{3}{4}$ m = 375 cm; d. 4 cm = 40 mm;</p> <p> e. 3 cm = 30 mm. f. 90 cm</p>	<p>Page 25</p> <p>Q1: a. 11 hours; b. 5.5 miles</p> <p>Q2: a. $17\frac{1}{2}$ metres; b. $52\frac{1}{2}$ m; c. 35 m</p>
<p>Page 26</p> <p>Q1: a. $1\frac{1}{2}$; b. $1\frac{1}{3}$; c. $1\frac{1}{4}$</p> <p>Q2: a. £3.00; b. 75 p; c. £1.20</p> <p> d. $2\frac{15}{20} + \frac{8}{20} = 3\frac{3}{20}$ e. $5 - 1\frac{3}{20} = 3\frac{17}{20}$</p>	<p>Page 27</p> <p>Q1: a. $2\frac{1}{4}$; b. $2\frac{1}{2}$; c. $4\frac{1}{3}$;</p> <p> d. $4\frac{1}{4}$; e. $6\frac{1}{2}$; f. 6</p> <p>Q2: e. $\frac{1}{6} + \frac{10}{12}$; f. $\frac{1}{7} + \frac{12}{14}$; g. $\frac{1}{8} + \frac{14}{16}$</p> <p>Q3: a. >; b. <; c. >; d. <; e. <; f. <</p>
<p>Page 28</p> <p>Q1: a. $\frac{1}{2}$ litre; b. 1000 ml; c. 1500 ml; d. 500 ml.</p> <p>Q2: a. $1\frac{1}{4}$; b. $2\frac{1}{4}$; c. $4\frac{1}{2}$; d. $1\frac{1}{4}$; e. $1\frac{1}{2}$;</p> <p> f. $1\frac{1}{6}$; g. 4; h. $1\frac{3}{5}$; i. $1\frac{1}{8}$; j. $2\frac{1}{8}$</p>	<p>Page 29</p> <p>Q1: a. i. $\frac{1}{4}$; ii. $\frac{3}{4}$; b. i. $\frac{1}{2}$; ii. $\frac{1}{2}$</p> <p>Q2: a. 6 cartons. b. £2.25; c. Own answer.</p>
<p>Page 30</p> <p>Q2: a. $3\frac{2}{5} - 1\frac{1}{2} = \frac{17}{5} - \frac{3}{2} = \frac{19}{10} = 1\frac{9}{10}$;</p> <p> b. $3\frac{2}{5} + 1\frac{1}{2} = \frac{17}{5} + \frac{3}{2} = \frac{49}{10} = 4\frac{9}{10}$</p>	<p>Page 31</p> <p>Q1: a. Halves 5, 7, 11; b. Thirds 7, 11, 16;</p> <p> c. Quarters 11, 13, 23; d. Fifths 8, 18, 29;</p> <p> e. Sixths 11, 17, 41; f. Eighths 11, 29, 47;</p> <p> g. Tenths 17, 53, 79</p>