

Math Basics for the Health Care Professional, 5e (Lesmeister)
Unit 2: Fractions

Test A

Solve each of the problems. Reduce to lowest terms as necessary.

1) $\frac{3}{4} + \frac{1}{2} + \frac{1}{6}$

Answer: $1\frac{5}{12}$

Objective: 2-8

2) $8\frac{1}{4} - 4\frac{1}{2}$

Answer: $3\frac{3}{4}$

Objective: 2-9

3) $\frac{1}{25} \times 30$

Answer: $1\frac{1}{5}$

Objective: 2-10

4) $\frac{7}{60} \div \frac{1}{4}$

Answer: $\frac{7}{15}$

Objective: 2-11

5) If you take $2\frac{1}{2}$ tablets of medication three times a day for ten days, how many tablets in total

will you take?

Answer: 75 tablets

Objective: 2-10 and 2-12

6) $35^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

Answer: 95

Objective: 2-13

7) $95^{\circ}\text{F} = \underline{\hspace{2cm}}^{\circ}\text{C}$

Answer: 35

Objective: 2-13

8) Arrange from smallest to largest: $\frac{3}{6}, \frac{2}{3}, \frac{5}{12}, \frac{1}{4}$

Answer: $\frac{1}{4}, \frac{5}{12}, \frac{3}{6}, \frac{2}{3}$

Objective: 2-3, 2-4, and 2-5

9) A medication is given in the following amounts: $1\frac{5}{8}$ ounces, $1\frac{3}{4}$ ounces, and $1\frac{1}{2}$ ounces. How many ounces are given in total?

Answer: $4\frac{7}{8}$ ounces

Objective: 2-8 and 2-12

10) A tablet contains 250 milligrams. How many milligrams are in $12\frac{1}{2}$ tablets?

Answer: 3,125 milligrams

Objective: 2-10 and 2-12

11) Reduce $\frac{17}{51}$

Answer: $\frac{1}{3}$

Objective: 2-6

12) Make into an improper fraction: $8\frac{2}{3}$

Answer: $\frac{26}{3}$

Objective: 2-2 and 2-6

13) The doctor saw 9 infants and 13 toddlers this week. Express the number of infants to the number of toddlers as a fraction.

Answer: $\frac{9}{13}$

Objective: 2-1 and 2-2

14) Change this improper fraction into a mixed number: $\frac{120}{9}$

Answer: $13\frac{1}{3}$

Objective: 2-2 and 2-6

15) Read the ruler. What is the measurement that the arrow points to?



Answer: $2\frac{3}{4}$ inches

Objective: 2-16

16) $8\frac{5}{12} - 5$

Answer: $3\frac{5}{12}$

Objective: 2-9

17) $\frac{8}{11} \times \frac{1}{4} \times 2\frac{1}{3}$

Answer: $\frac{14}{33}$

Objective: 2-10

18) $\frac{5\frac{1}{4}}{\frac{1}{200}}$

Answer: 1,050

Objective: 2-14

19) Divide $2\frac{1}{2}$ by $\frac{1}{7}$

Answer: $17\frac{1}{2}$

Objective: 2-11

20) Nurse Brown works a 10-hour shift. She has worked $7\frac{3}{5}$ hours already. How many hours are left for her to work in this shift?

Answer: $2\frac{2}{5}$ hours

Objective: 2-9

21) Find the lowest common denominator for the following fractions: $\frac{14}{5}$, $\frac{2}{9}$, $\frac{1}{5}$

Answer: 45

Objective: 2-3 and 2-7

22) $2\frac{3}{4} \times 2\frac{1}{3} \times 1\frac{1}{6}$

Answer: $7\frac{35}{72}$

Objective: 2-8

23) $22\frac{1}{4} - 9\frac{1}{3}$

Answer: $12\frac{11}{12}$

Objective: 2-9

24) $\frac{\frac{1}{100}}{2} \times 2\frac{1}{2}$

Answer: $\frac{1}{80}$

Objective: 2-14

25) If one tablet contains 375 milligrams of medication, how many milligrams are in $1\frac{1}{2}$ tablets?

Round to the nearest milligram.

Answer: 563 milligrams

Objective: 2-15

Test B

Solve each of the problems. Reduce to lowest terms as necessary.

1) $3\frac{3}{5} + 4\frac{2}{15}$

Answer: $7\frac{11}{15}$

Objective: 2-8

2) $6\frac{1}{2} - 4\frac{1}{4}$

Answer: $2\frac{1}{4}$

Objective: 2-9

3) $\frac{15}{32} \times 4$

Answer: $1\frac{7}{8}$

Objective: 2-10

4) $\frac{4}{50} \div \frac{1}{25}$

Answer: $\frac{2}{3}$

Objective: 2-11

5) Reduce to lowest terms: $\frac{32}{108}$

Answer: $\frac{8}{27}$

Objective: 2-10 and 2-12

6) $45^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$

Answer: 113

Objective: 2-13

7) If Patient Smith's normal pulse rate is 76 beats per minute, how many beats are in $\frac{1}{4}$ of a minute?

Answer: 19

Objective: 2-13

8) Arrange from largest to smallest: $\frac{5}{8}, \frac{3}{4}, \frac{2}{3}, \frac{3}{24}$

Answer: $\frac{3}{4}, \frac{2}{3}, \frac{5}{8}, \frac{3}{24}$

Objective: 2-3, 2-4, and 2-5

9) $\frac{\frac{2}{3}}{\frac{1}{4}}$

Answer: $2\frac{2}{3}$

Objective: 2-8 and 2-12

10) A dental assistant works for $7\frac{1}{2}$ hours a day at a rate of \$13.00 per hour. How much does the dental assistant earn each day before deductions?

Answer: \$97.50

Objective: 2-10 and 2-12

11) Reduce $\frac{14}{64}$

Answer: $\frac{7}{32}$

Objective: 2-6

12) Make into an improper fraction: $12\frac{1}{3}$

Answer: $\frac{37}{3}$

Objective: 2-2 and 2-6

13) The doctor saw 5 female patients and 8 male patients today. Express the number of females to the number of males as a fraction.

Answer: $\frac{5}{8}$

Objective: 2-1 and 2-2

14) Change this improper fraction into a mixed number: $\frac{81}{8}$

Answer: $10\frac{1}{8}$

Objective: 2-2 and 2-6

15) Read the ruler. What is the measurement that the arrow points to?



Answer: $1\frac{1}{8}$ inches

Objective: 2-16

16) $9\frac{5}{7} - 4$

Answer: $5\frac{5}{7}$

Objective: 2-9

17) $\frac{8}{9} \times \frac{1}{2} \times 2\frac{1}{3}$

Answer: $1\frac{1}{27}$

Objective: 2-10

18) $\frac{\frac{1}{300}}{\frac{1}{2}}$

Answer: $\frac{1}{50}$

Objective: 2-14

19) Divide $4\frac{1}{8}$ by $\frac{2}{5}$

Answer: $10\frac{5}{16}$

Objective: 2-11

20) An intern is scheduled for a 16-hour shift. He has worked $9\frac{2}{5}$ hours already. How many hours are left for him to work in this shift?

Answer: $6\frac{3}{5}$ hours

Objective: 2-9

21) Find the lowest common denominator for the following fractions: $\frac{7}{9}, \frac{4}{6}, \frac{1}{3}$

Answer: 18

Objective: 2-3 and 2-7

22) $\frac{2}{3} \times 1\frac{1}{8} \times 1\frac{1}{4}$

Answer: $\frac{15}{16}$

Objective: 2-8

$$23) 18\frac{1}{4} - 7\frac{1}{3}$$

$$\text{Answer: } 10\frac{11}{12}$$

Objective: 2-9

$$24) \frac{1}{\frac{50}{3}} \times 1\frac{1}{4}$$

$$\text{Answer: } \frac{1}{360}$$

Objective: 2-14

25) If one tablet contains 250 milligrams of medication, how many milligrams are in $2\frac{1}{2}$ tablets?

Answer: 625 milligrams

Objective: 2-15

Test C

Solve each of the problems. Reduce to lowest terms as necessary.

$$1) \frac{1}{8} + \frac{3}{4} + \frac{1}{6} =$$

$$\text{Answer: } 1\frac{1}{24}$$

Objective: 2-8

$$2) 12\frac{1}{2} - 3\frac{1}{4}$$

$$\text{Answer: } 8\frac{1}{4}$$

Objective: 2-9

$$3) \frac{1}{25} \times 32 =$$

$$\text{Answer: } 1\frac{7}{25}$$

Objective: 2-10

$$4) \frac{3}{20} \div \frac{5}{1}$$

$$\text{Answer: } \frac{3}{100}$$

Objective: 2-11

5) If you take $1\frac{1}{2}$ tablets of medication 4 times a day for 10 days, how many total tablets will you take?

Answer: 60

Objective: 2-10 and 2-12

6) $5^{\circ}\text{C} = \underline{\hspace{2cm}}$ $^{\circ}\text{F}$

Answer: 41

Objective: 2-13

7) $68^{\circ}\text{F} = \underline{\hspace{2cm}}$ $^{\circ}\text{C}$

Answer: 20

Objective: 2-13

8) Arrange from smallest to largest: $\frac{3}{8}, \frac{1}{16}, \frac{1}{2}, \frac{1}{4}$

Answer: $\frac{1}{16}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}$

Objective: 2-3, 2-4, and 2-5

9) A medication is given in the following amounts: $2\frac{8}{8}$ ounces, $1\frac{3}{4}$ ounces, and $4\frac{1}{4}$ ounces. How many ounces are given in total?

Answer: 9

Objective: 2-8 and 2-12

10) A tablet contains 250 milligrams. How many milligrams are in $5\frac{1}{2}$ tablets?

Answer: 1,375

Objective: 2-10 and 2-12

11) Reduce $\frac{33}{39}$

Answer: $\frac{11}{13}$

Objective: 2-6

12) Make into an improper fraction: $8\frac{3}{7}$

Answer: $\frac{59}{7}$

Objective: 2-2 and 2-6

13) The doctor saw 7 infants and 13 toddlers this week. Express the number of infants to the number of toddlers as a fraction.

Answer: $\frac{7}{13}$

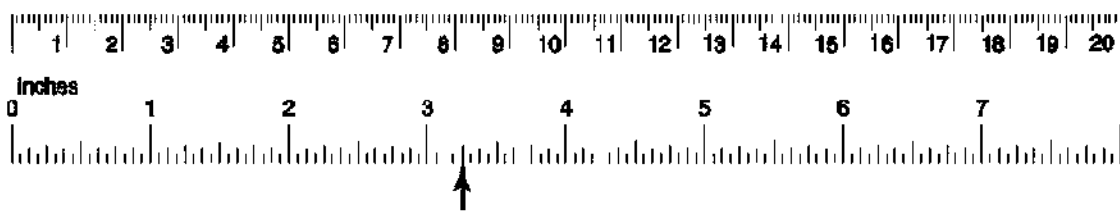
Objective: 2-1 and 2-2

14) Change this improper fraction into a mixed number: $\frac{72}{5}$

Answer: $14\frac{2}{5}$

Objective: 2-2 and 2-6

15) Read the ruler. What is the measurement that the arrow points to?



Answer: $3\frac{1}{4}$ inches

Objective: 2-16

16) $14\frac{1}{4} - 7$

Answer: $7\frac{1}{4}$

Objective: 2-9

17) $2\frac{1}{4} \times \frac{1}{8} \times 1\frac{6}{7}$

Answer: $\frac{117}{224}$

Objective: 2-10

18) $\frac{4\frac{1}{4}}{\frac{1}{200}}$

Answer: 850

Objective: 2-14

19) Divide: $4\frac{1}{3}$ by $\frac{1}{4}$

Answer: $17\frac{1}{3}$

Objective: 2-11

20) Nurse Brown works a 10-hour shift. She has worked $5\frac{2}{5}$ hours already. How many hours are left for her to work in this shift?

Answer: $4\frac{3}{5}$

Objective: 2-9

21) Find the lowest common denominator for the following fractions: $\frac{7}{8}$, $\frac{1}{10}$, $\frac{2}{5}$

Answer: 40

Objective: 2-3 and 2-7

22) $8\frac{1}{2} \times 4\frac{2}{3} \times 1\frac{1}{4}$

Answer: $49\frac{7}{12}$

Objective: 2-8

23) $25\frac{1}{8} - 7\frac{14}{24}$

Answer: $17\frac{13}{24}$

Objective: 2-9

24) $\frac{\frac{1}{200}}{4} \times \frac{1}{25}$

Answer: $\frac{1}{20000}$

Objective: 2-14

25) If one tablet contains 350 milligrams of medication, how many milligrams are in $2\frac{1}{2}$ tablets?

Round to the nearest milligram.

Answer: 875

Objective: 2-15