

Exercise XLI.

1. 12 lbs., 8 lbs., 32 lbs., respectively.
2. 65 and 1430, 130 and 715.
3. 13.
4. 160 lbs., 250 lbs.

5. (a) $\left\{ \begin{array}{l} 1. \text{ Vulgar} \\ 2. \text{ Decimal} \end{array} \right\} \left\{ \begin{array}{l} 1. \text{ Simple } \begin{cases} (a) \text{ Proper.} \\ (b) \text{ Improper.} \end{cases} \\ 2. \text{ Mixed.} \\ 3. \text{ Compound.} \\ 4. \text{ Complex.} \end{array} \right.$

(b) (i.), $1\frac{3}{4}$; (ii.), $\frac{1}{16}$; (iii.), $\frac{45}{128}$; (iv.), $\frac{1}{4}$; (v.), $\cdot 4265\dot{1}$.

- (c) $\left\{ \begin{array}{l} 1. \text{ Vulgar} \\ 2. \text{ Decimal} \end{array} \right\} \left\{ \begin{array}{l} 1. \text{ Simple: } \frac{7}{8}, \frac{13}{56}, \frac{31}{28}, \frac{117}{16}, \frac{1}{8}, \frac{1}{4}, \frac{45}{128}. \\ 2. \text{ Mixed: } 1\frac{3}{8}. \\ 3. \text{ Compound: } \frac{3}{4} \text{ of } \frac{7\frac{1}{2}}{16}. \\ 4. \text{ Complex: } \frac{11\frac{3}{4}}{7\frac{1}{4}}. \end{array} \right.$

6. Lumber \$34.65, Posts \$13.00, Labor \$7.35; Total \$55.00.
7. 272 barrels; and 72 minutes.
8. 30%.
9. 280 twenty-fives, 720 tens.
10. 91 and 161.
11. \$8018.75.
12. A, \$152; B, \$12; C, \$76.
13. 40 feet.

Exercise XLII.

1. 25625 and 10250.
2. $6\frac{1}{4}\%$.
3. 290 rods.
4. $\frac{3}{4} = \frac{15}{20}$ and $\frac{2}{3} = \frac{12}{20} \therefore \frac{3}{4} \div \frac{2}{3} = \frac{15}{20} \div \frac{12}{20} = \frac{15}{12} = \frac{3 \times 5}{4 \times 3} = \frac{3}{4} \div \frac{2}{3} = \frac{3}{4} \times \frac{3}{2} = 1\frac{1}{4}$.
5. A, \$280.80; B, \$546.00; C, \$458.64; total, \$1285.44.
6. $37\frac{1}{2}$; 25%.
7. 640 acres.
8. \$321.36.
9. 96.
10. 25%.
11. 60 dozen.
12. $\frac{1}{4}$.
13. 2 feet 2 inches.