

Exercise 13(A)

Express each of the following as percentage.

$$a. \frac{37}{100} = \frac{37}{100} \times \frac{100}{100} = \frac{37}{1} = 37\%$$

$$b. \frac{18}{100} = \frac{18}{100} \times \frac{100}{100} = \frac{18}{1} = 18\%$$

$$c. \frac{3}{100} = \frac{3}{100} \times \frac{100}{100} = \frac{3}{1} = 3\%$$

$$d. \frac{85}{100} = \frac{85}{100} \times \frac{100}{100} = \frac{85}{1} = 85\%$$

$$e. \frac{29}{100} = \frac{29}{100} \times \frac{100}{100} = \frac{29}{1} = 29\%$$

Express each of the following as a fraction with 100 as the denominator.

$$a. 41\% = \frac{41}{100}$$

$$b. 56\% = \frac{56}{100}$$

$$c. 62\% = \frac{62}{100}$$

$$d. 69\% = \frac{69}{100}$$

$$e. 93\% = \frac{93}{100}$$

3. Express each of the following fractions as percentage

$$a. \frac{1}{4} = \frac{1}{4} \times \frac{100}{100} = \frac{100}{4} = \frac{25}{1} = 25\%$$

$$b. \frac{9}{10} = \frac{9}{10} \times \frac{100}{100} = \frac{900}{100} = 90 = 90\%$$

$$c. \frac{17}{20} = \frac{17}{20} \times \frac{100}{100} = \frac{1700}{20} = \frac{85}{1} = 85\%$$

$$d. 4\frac{1}{2} = \frac{9}{2} = \frac{9}{2} \times \frac{100}{100} = \frac{450}{1} = 450\%$$

$$e. \frac{17}{10} = \frac{17}{10} \times \frac{100}{100} = \frac{1700}{10} = 170 = 170\%$$

4. Express each of the following as a fraction in its lowest terms

$$a. 38\% = \frac{38}{100}$$

$$b. 47\% = \frac{47}{100}$$

$$c. 78\% = \frac{78}{100}$$

$$d. 82\% = \frac{82}{100}$$

$$e. 67\frac{1}{3}\% = \frac{202}{3} \div 100 = \frac{202}{3} \times \frac{1}{100} = \frac{202}{300} = \frac{101}{150}$$

$$f. 112\frac{1}{2}\% = \frac{225}{2} \div 100 = \frac{225}{2} \times \frac{1}{100} = \frac{225}{200} = \frac{9}{8} = 1\frac{1}{8}$$

5 Express each of the following as a decimal fraction.

a. $13\% = \frac{13}{100} = 0.13$

b. $24\% = \frac{24}{100} = 0.24$

c. $69\% = \frac{69}{100} = 0.69$

d. $81\% = \frac{81}{100} = 0.81$

e. $105\% = \frac{105}{100} = 1.05$

f. $250\% = \frac{250}{100} = 2.50$

g. $6.25\% = \frac{625}{100} = 6.25$

h. $10.02\% = \frac{1002}{100} = 10.02$

6 Express each of the following decimal fractions as percentage.

a. $0.58 = \frac{58}{100} = 58\%$

g. $4.20 = \frac{420}{100} = 420\%$

b. $0.483 = \frac{483}{1000} = 483\%$

h. $8.75 = \frac{875}{100} = 875\%$

c. $2.76 = \frac{276}{100} = 276\%$

d. $9.243 = \frac{9243}{1000} = 9243\%$

e. $6.025 = \frac{6025}{1000} = 6025\%$

f. $3.96 = \frac{396}{100} = 396\%$