

Exercise – 10.1

A) Write as percentage.

1) $\frac{47}{100} = 47\%$ 2) $\frac{19}{100} = 19\%$ 3) $\frac{87}{100} = 87\%$

4) $\frac{99}{100} = 99\%$ 5) $\frac{14}{100} = 14\%$ 6) $\frac{16}{100} = 16\%$

B) Convert to percentage.

1) $\frac{7}{50} = \frac{7}{50} \times 100\% = 14\%$ 2) $\frac{7}{9} = \frac{7}{9} \times 100\% = \frac{700}{9} = 77.77\%$

3) $\frac{12}{15} = \frac{12}{15} \times 100\% = 80\%$ 4) $\frac{13}{25} = \frac{13}{25} \times 100\% = 52\%$

C) Convert into fraction.

1) $25\% = \frac{25}{100} = \frac{1}{4}$ 3) $16\% = \frac{16}{100} = \frac{4}{25}$

2) $19\% = \frac{19}{100} = \frac{19}{100}$ 4) $47\% = \frac{47}{100} = \frac{47}{100}$

Exercise – 10.2

A) Express the following decimals as percentage.

1) $0.07 = 0.07 \times 100\% = 7\%$ 2) $0.69 = 0.69 \times 100\% = 69\%$

3) $0.40 = 0.40 \times 100\% = 40\%$ 4) $6.32 = 6.32 \times 100\% = 632\%$

B) Change the following percentage to decimals.

1) $6\% = \frac{6}{100} = 0.06$ 2) $39\% = \frac{39}{100} = 0.39$

3) $93\% = \frac{93}{100} = 0.93$ 4) $100\% = \frac{100}{100} = 1.00$ or 1

Exercise – 10.3

A) Write each as a percentage of a rupee.

1) 18 paise

Sol- 100 paise = 1 rupee

$$18 \text{ paise} = \frac{18}{100} = 18\% \text{ of 1 rupee}$$

2) 12 paise

Sol- 100 paise = 1 rupee

$$12 \text{ paise} = \frac{12}{100} = 12\% \text{ of 1 rupee}$$

3) 50 paise

Sol- 100 paise = 1 rupee

$$50 \text{ paise} = \frac{50}{100} = 50\% \text{ of 1 rupee}$$

B) Write each as a percentage of a metre.

1) 100 cm

Sol – 100 cm = 1 metre

$$100 \text{ cm} = \frac{100}{100} = 100\% \text{ of 1 metre}$$

2) 80 cm

Sol – 100 cm = 1 metre

$$80 \text{ cm} = \frac{80}{100} = 80\% \text{ of 1 metre}$$

3) 1 cm

Sol – 100 cm = 1 metre

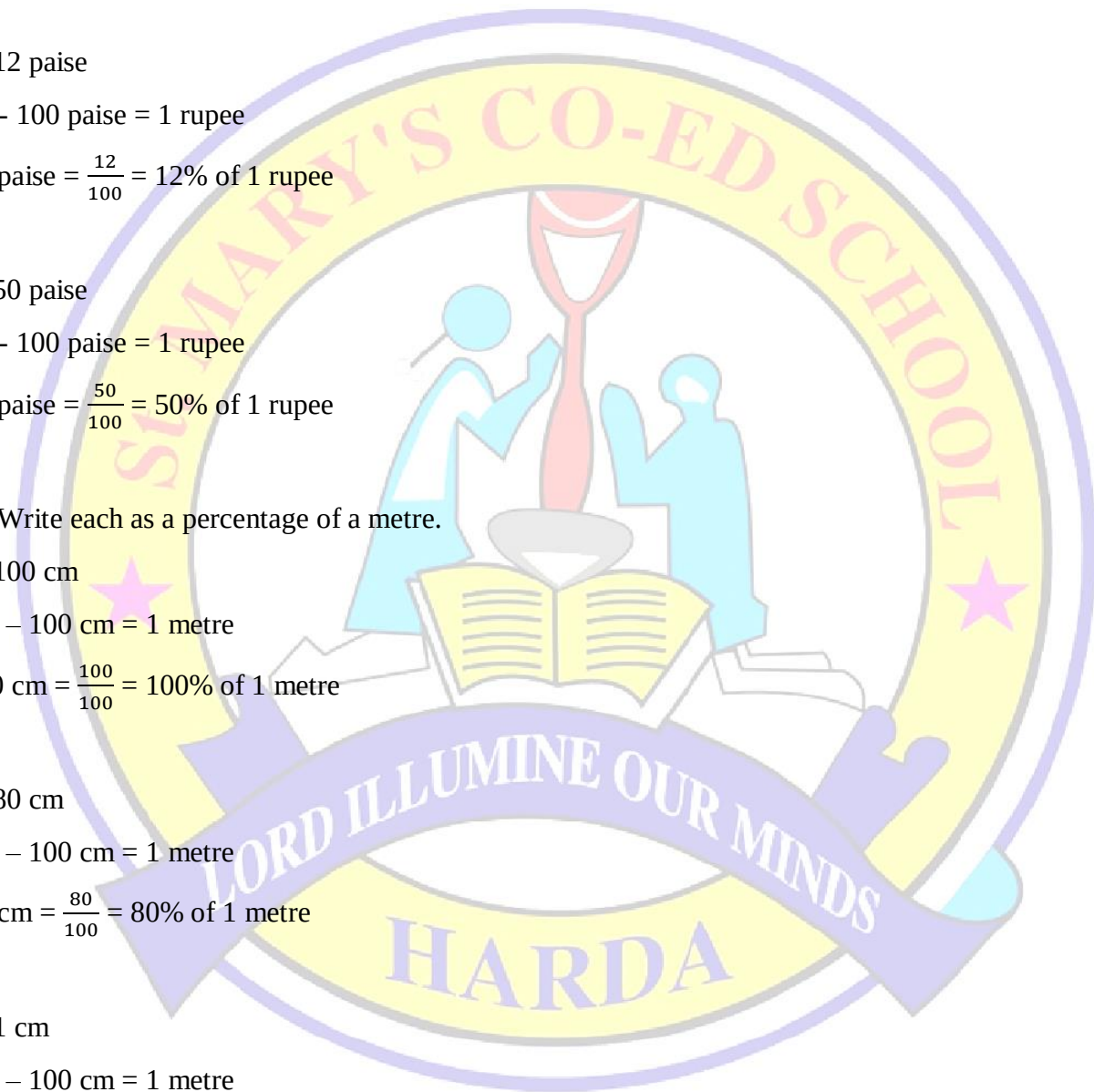
$$1 \text{ cm} = \frac{1}{100} = 1\% \text{ of 1 metre}$$

C) Write each as a percentage of a kilogram.

1) 150 g

Sol- 1000g = 1 kg

$$150\text{g} = \frac{150}{1000} = 15\% \text{ of 1 kg}$$



2) 80 g

Sol- $1000\text{g} = 1\text{ kg}$

$$80\text{g} = \frac{80}{1000} = 8\% \text{ of } 1\text{ kg}$$

3) 1000 g

Sol- $1000\text{g} = 1\text{ kg}$

$$1000\text{g} = \frac{1000}{1000} = 100\% \text{ of } 1\text{ kg}$$

D) Write each as a percentage of an hour.

1) 15 minutes

Sol- $60\text{ minutes} = 1\text{ hour}$

$$15\text{ min} = \frac{15}{60} \times 100\% = 25\% \text{ of } 1\text{ hour}$$

2) 60 minutes

Sol- $60\text{ minutes} = 1\text{ hour}$

$$60\text{ min} = \frac{60}{60} \times 100\% = 100\% \text{ of } 1\text{ hour}$$

1) 30 minutes

Sol- $60\text{ minutes} = 1\text{ hour}$

$$30\text{ min} = \frac{30}{60} \times 100\% = 50\% \text{ of } 1\text{ hour}$$

E) Write each as a percentage of a day.

1) 12 hour

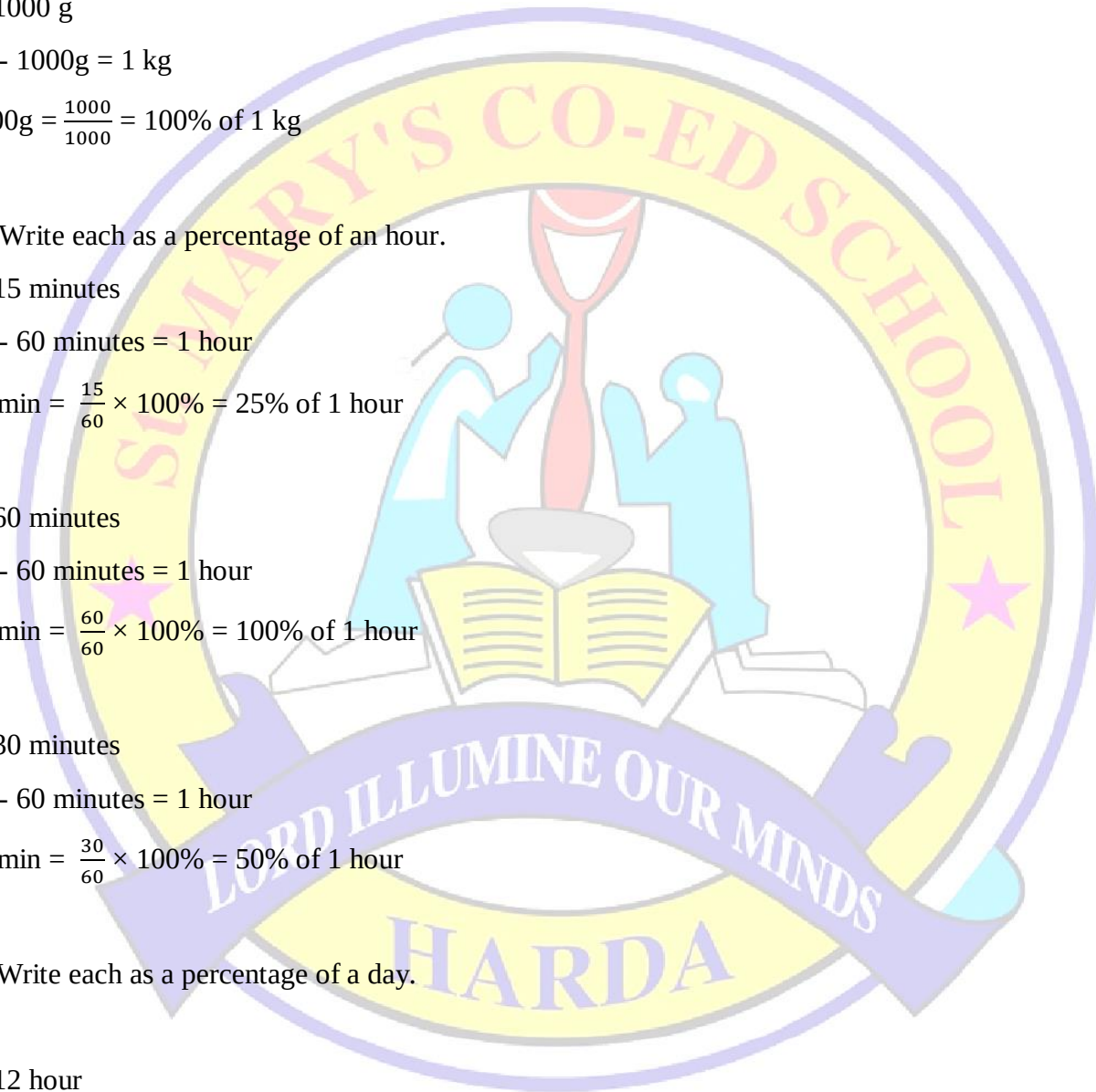
Sol- $24\text{ hours} = 1\text{ day}$

$$12\text{ hours} = \frac{12}{24} \times 100\% = 50\% \text{ of } 1\text{ day}$$

2) 18 hour

Sol- $24\text{ hours} = 1\text{ day}$

$$18\text{ hours} = \frac{18}{24} \times 100\% = 75\% \text{ of } 1\text{ day}$$



3) 24 hour

Sol- 24 hours = 1 day

$$24 \text{ hours} = \frac{24}{24} \times 100\% = 100\% \text{ of 1 day}$$

Exercise -10.4

A) Find

1) 5% of 20

$$\text{Sol- } \frac{5}{100} \times 20 = \frac{1}{20} \times 20 = 1$$

2) 60% of 120

$$\text{Sol- } \frac{60}{100} \times 120 = \frac{3}{5} \times 120 = 72$$

3) 64% of 8000

$$\text{Sol- } \frac{64}{100} \times 8000 = 64 \times 80 = 5120$$

4) 30% of 1200

$$\text{Sol- } \frac{30}{100} \times 1200 = 30 \times 12 = 360$$

B) What percentage is:

1) $2\frac{1}{2}$ of 10

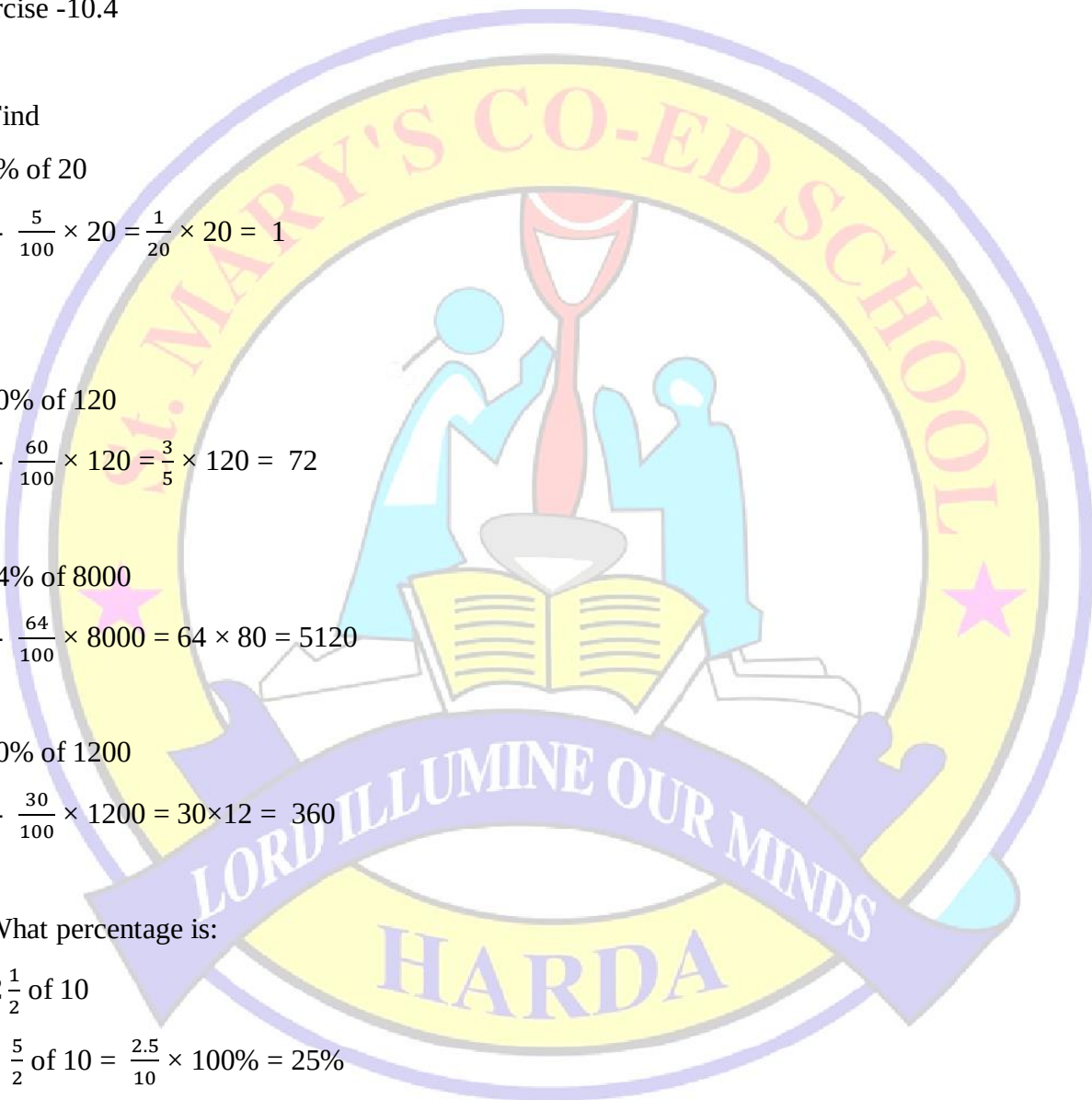
$$\text{Sol- } \frac{5}{2} \text{ of } 10 = \frac{2.5}{10} \times 100\% = 25\%$$

2) 45 of 135

$$\text{Sol- } \frac{45}{135} \times 100\% = 33.33\%$$

3) 10 of 60

$$\text{Sol- } \frac{10}{60} \times 100\% = 16.66\%$$



4) 24 of 72

Sol- $\frac{24}{72} \times 100\% = 33.33\%$

Exercise – 10.5

Solve.

1) Mr. kumar's monthly income is Rs 2500. He pays 20% of it as tax. How much tax does he pay per month ?

Sol- Mr. Kumar's monthly income = Rs 2500

Percentage he pays as tax = 20%

Amount he pays as tax = 20% of 2500

$$= \frac{20}{100} \times 2500 = \text{Rs } 500$$

2) Out of the total distance of 1200 km. Ram travelled 40% by road and the rest by bus . How many kilometers did he travel by road? How many kilometers did he travel by bus?

Sol- Total distance = 1200 km

Percentage he travelled by road = 40%

No. of km he travelled by road = 40% of 1200

$$= \frac{40}{100} \times 1200 = 480 \text{ km}$$

No. of km he travelled by bus = 1200 km – 480 km = 720 km

3) Kishorilal prepared a will to distribute his assets worth Rupees one lakh as under

1) 35% to his wife

Sol – Total asset = Rs 100000

= 35% of Rs 100000

$$= \frac{35}{100} \times 100000 = \text{Rs } 35000$$

2) 25% to his elder son

$$= 25\% \text{ of Rs } 100000$$

$$= \frac{25}{100} \times 100000 = \text{Rs } 25000$$

3) 10% to charity

$$= 10\% \text{ of Rs } 100000$$

$$= \frac{10}{100} \times 100000 = \text{Rs } 10000$$

4) 10% to his nephew

$$= 10\% \text{ of Rs } 100000$$

$$= \frac{10}{100} \times 100000 = \text{Rs } 10000$$

5) 20% to his younger son

$$= 20\% \text{ of Rs } 100000$$

$$= \frac{20}{100} \times 100000 = \text{Rs } 20000$$

Total amount each one receive as under

Wife = Rs 35000

Elder son = Rs 25000

Charity = Rs 10000

Nephew = Rs 10000

Younger son = Rs 20000

Total amount = Rs 100000

