

77. Reciprocals

Practice Questions:

1. Work out the reciprocal of 2.

2. Work out the reciprocal of 5.

3. Work out the reciprocal of 10.

4. Work out the reciprocal of $\frac{\pi}{3}$

5. Work out the reciprocal of $\frac{2}{7}$

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Practice Questions:

6. Work out the reciprocal of -4.

7. Work out the reciprocal of $-\frac{1}{5}$

8. Work out the reciprocal of 0.25.

9. Work out the reciprocal of 1.5.

10. Work out the reciprocal of 6. Then multiply 6 by its reciprocal and write down the result.

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Scenario Questions: Give answers up to 3 decimal places

1. A car completes its journey in 2 hours. Work out the reciprocal of 2 to calculate how much of the journey is completed in 1 hour.

2. A machine produces 5 items each minute. Work out the reciprocal of 5 to calculate what fraction of a minute it takes to make 1 item.

3. Over a 1 hour period 10 buses arrive. Work out the reciprocal of 10 to calculate what fraction of an hour it takes for 1 bus to arrive.

4. A student completes half a project in 1 day. Work out the reciprocal of $\frac{1}{2}$ to calculate how many days it would take to complete a full project.

5. A recipe uses $\frac{3}{4}$ of a litre of milk per serving. Work out the reciprocal of $\frac{3}{4}$ to calculate how many servings can be made from 1 litre of milk.

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Scenario Questions:

6. A lift goes down 4 floors every second. Work out the reciprocal of 4 to calculate what fraction of a second it takes to go down 1 floor.

7. A runner covers $\frac{2}{5}$ of a kilometre in 1 minute. Work out the reciprocal of $\frac{2}{5}$ to calculate how many minutes it would take to run 1 kilometre.

8. A train takes 0.25 hours to travel between two stations. Work out the reciprocal of 0.25 to calculate how many trips the train could make in 1 hour.

9. A worker finishes 1.5 jobs in 1 hour. Work out the reciprocal of 1.5 to calculate how many hours it takes to complete 1 job.

10. A tank fills at a rate of $\frac{7}{3}$ litres per minute. Work out the reciprocal of $\frac{7}{3}$ to calculate how many minutes it takes to fill 1 litre.

ANSWERS

Topic 77. Reciprocals

Practice Questions:

- | | |
|--------------------|-------------------|
| 1. $\frac{1}{2}$ | 6. $-\frac{1}{4}$ |
| 2. $\frac{1}{5}$ | 7. -5 |
| 3. $\frac{1}{10}$ | 8. 4 |
| 4. $\frac{3}{\pi}$ | 9. $\frac{2}{3}$ |
| 5. $\frac{7}{2}$ | 10. 1 |

Scenario Questions:

- | | |
|-------------------|---------------|
| 1. 0.500 | 6. 0.250 sec |
| 2. 0.200 min | 7. 2.500 min |
| 3. 0.100 hr | 8. 4 trips |
| 4. 2 days | 9. 0.667 hr |
| 5. 1.333 servings | 10. 0.429 min |

Verify Answers