 A. Choose the Correct Ar 1. Two quantities are sa a) Constant c) Zero 	nswer: aid to be in direct proportion if their ratio is: b) Variable
 1. Two quantities are sa a) Constant c) Zero 	aid to be in direct proportion if their ratio is: b) Variable
a) Constant c) Zero	b) Variable
c) Zero	
	d) None of these
2. If x \propto y, then $\frac{x}{y}$ is:	
a) Increasing	b) Decreasing
c) Constant	d) Zero
3. If 5 pens cost ₹60, wi	nat is the cost of 8 pens assuming direct proportion?
a) ₹90	b) ₹96
c) ₹80	d) ₹100
4. In direct proportion,	if one quantity doubles, the other:
a) Halves	b) Doubles
c) Triples	d) Remains same
5. Which of the following	ng shows a direct proportion relationship?
 a) Speed and travel ti 	me for fixed distance
b) Distance and time	at constant speed
c) Pressure and volun	ne of gas
d) Number of worker	s and time taken to complete work
3. Write the Missing Ter	ms to Complete the Sentences:
1. In direct proportion, $\frac{2}{3}$	<u>c</u> =
2. In direct proportion, i	f one quantity increases, the other quantity
3. If 10 kg of sugar costs	₹400, then 5 kg of sugar costs ₹
4. If x and y are directly	proportional, then x = × y
Direct proportion quantities	represents a relationship between t

- 1. If 12 notebooks cost ₹240, find the cost of 18 notebooks
- 2. If 6 meters of cloth costs ₹150, what will be the cost of 10 meters of cloth
- 3. The cost of 5 kg of apples is ₹350 Find the cost of 8 kg of apples

- 4. If 8 workers can complete a job in 20 days, how many workers are needed to complete the same job in 10 days assuming direct proportion
- 5. If a car travels 180 km in 3 hours, how far will it travel in 5 hours at the same speed

D. Mark each sentence with a True (\checkmark) or False (X):

1. In direct proportion, the ratio of two quantities is always constant.

2. If x \propto y, then $\frac{x}{y}$ = constant.

3. In direct proportion, if one quantity doubles, the other remains unchanged.

- 4. If two quantities increase together in the same ratio, they are in direct proportion.
- 5. The graph of a direct proportion is a straight line passing through origin.

E. Challenge yourself with these questions:

- 1. If 4 machines produce 100 units in 5 hours, how many units will 6 machines produce in 5 hours.
- 2. If 7 books cost ₹560, find the cost of 10 books.
- 3. 12 pencils cost ₹96 Find the cost of 20 pencils.
- 4. If 15 m of cloth costs ₹750, find the cost of 9 m of cloth.
- 5. A train travels 120 km in 2 hours Find the distance covered in 5 hours at the same speed.