



INDIAN SCHOOL AL WADI AL KABIR
Class VIII, Mathematics
Proportional Reasoning-1 WORKSHEET

OBJECTIVE TYPE (1 Mark)

Q.1.	If 5 pencils cost ₹20, how much will 8 pencils cost?							
	A	₹16	B	₹42	C	₹32	D	₹52
Q.2.	If x and y are directly proportional, then which one is true?							
	A	$\frac{x}{y} = \text{constant}$	B	$xy = \text{constant}$	C	$x+y = \text{constant}$	D	Can't predict
Q.3.	A machine takes 6 hours to fill 48 containers. How many containers will it fill in a day?							
	A	192 containers	B	292 containers	C	392 containers	D	492 containers
Q.4.	A recipe uses 500 g of onion for 5 people. How many grams of onion is required for serving 9 people?							
	A	300 g	B	900 g	C	600 g	D	120 g
Q.5.	If x and y vary directly. $x=16$, when $y=20$. When $x=28$ find the value of y .							
	A	45	B	35	C	25	D	15
Q.6.	If 4 pens cost ₹12, then how much will 7 pens of the same type cost?							
	A	₹10	B	₹21	C	₹20	D	₹25
Q.7.	For every five days' work, Gokul gets two days of holidays. If he works for 20 days, how many days of holidays can he enjoy?							
	A	8 days	B	16 days	C	5 days	D	10 days
Q.8.	On a map, 1 cm represents 5 km. If the distance between two cities on the map is 7.2 cm, what is the actual distance between the two cities?							
	A	36 km	B	72 km	C	18 km	D	42 km
Q.9.	A car covers 82.5 km in 5.5 litres of petrol. How much distance will it cover in 13.2 litres of petrol?							
	A	200 km	B	100 km	C	189 km	D	198 km
Q.10.	Anu types 600 words in half an hour. How many words would she type in 9 minutes?							
	A	90 words	B	360 words	C	150 words	D	180 words
Short Answer Questions								
Q.11.	Asha purchased 7 books for Rs 91. How much would she have to pay for 13 such books?							

Q.12.	Divide ₹4,500 into two parts in the ratio 2 : 3															
Q.13.	Give 3 ratios that are proportional to 4 : 7.															
Q.14.	Are the ratios 3 : 4 and 36 : 48 proportional? Justify your answer															
Q.15.	When Rahul was 5 years old, his father was 7 times his age. What is the ratio of Rahul's age to his father's age? What will be the ratio of their ages when Rahul turns 20? Will the ratio stay the same?															
Long Answer Questions																
Q.16.	The cost of 8 kg of apples is ₹480. (a) Find the cost of 15 kg of apples. (b) If you have ₹1440, how many kilograms of apples can you buy?															
Q.17.	Given that x and y are directly proportional, find the missing values a , b , and c . <table><tr><td>x</td><td>7</td><td>a</td><td>2</td><td>32</td></tr><tr><td></td><td></td><td></td><td>1</td><td></td></tr><tr><td>y</td><td>28</td><td>52</td><td>b</td><td>c</td></tr></table>	x	7	a	2	32				1		y	28	52	b	c
x	7	a	2	32												
			1													
y	28	52	b	c												
Q.18.	Raj bought 35 packs of crayons for ₹700. Roy bought 7 packs of the same type of crayons. How much did Roy pay for it?															
Q.19.	A machine prints 540 pages in 6 hours. a) How many pages will it print in 10 hours? b) If the machine needs to print 1,800 pages, how many hours will it take?															
Q.20.	A truck needs 34 litres of diesel for covering 204 km. Find the diesel required by the truck to cover a distance of 300km.															
Q.21.	CASE STUDY QUESTION: A factory packs biscuits into boxes. Each box holds the same number of biscuits. The following data was collected:<table><tr><td>Number of Biscuits</td><td>50</td><td>200</td><td>?</td></tr><tr><td>Number of Boxes</td><td>2</td><td>?</td><td>10</td></tr></table> Based on the given information, answer the following questions: a) How many biscuits can fit in 1 box? b) If there are 200 biscuits, how many boxes are needed? c) If the factory uses 10 boxes, how many biscuits can be packed? d) Is the number of biscuits directly proportional to the number of boxes? If so, find the constant of variation. 	Number of Biscuits	50	200	?	Number of Boxes	2	?	10							
Number of Biscuits	50	200	?													
Number of Boxes	2	?	10													
ANSWERS																

Q.1.	C	Q.2.	A	Q.3.	A	Q.4.	B
Q.5.	B	Q.6.	B	Q.7.	A	Q.8.	A
Q.9.	D	Q.10.	D	Q.11.	₹ 169	Q.12.	1800 & 2700
Q.13.	8:14, 12:21 16:28	Q.14.	Yes, ratios are in proportion	Q.15.	Ratio when Rahul was 5 is 1:7 Ratio when Rahul is 20 is, 2:5	Q.16.	a) 900 b) 24 kg
Q.17.	a=13 b=84 c=128	Q.18.	₹140	Q.19.	a) 900 pages b) 20 hours	Q.20.	50 litres
Q.21.	a) 25 biscuits b) 8 boxes c) 250 biscuits d) Yes, k = 25						
