Name Date

MIXED RATIO PROBLEMS 7:2

1. **Scale Drawing – Map Distance** A map uses a scale of 1 cm : 4 miles. Two towns are 7 ½ cm apart on the map. What is the real distance between them? 	
2. **Recipe Scaling** A typical cookie dough uses flour to sugar to butter in the ratio 3:1:2. If I use 3 cups of flour, 1 cup of sugar and 2 cups of butter it makes 24 cookies. How much flour is needed to make 40 cookies? 	
3. **Mixing Paint** To make a shade of green paint, the ratio of blue paint to yellow paint is 3: 5. I mix up ¾ pint of green paint. How many fluid ounces of blue and yellow paint did I use? 	
4. **Comparing Speeds** A cyclist travels at an average speed of 12 miles every 45 minutes. At this speed, how far will they travel in 2 hours? 	
5. **Phone Data** A mobile phone plan charges $11 for every 4 GB of data. At the same rate, how much would 6 GB of data cost? 	
6. **Basketball Practice** During drills, the coach wants players to take layups and free throws in a ratio of 5: 3. If a player takes 72 shots, how many should be free throws? 	

Name Date

MIXED RATIO PROBLEMS 7:2 ANSWERS

1. **Scale Drawing – Map Distance** A map uses a scale of 1 cm : 4 miles. Two towns are 7 ½ cm apart on the map. What is the real distance between them? 	1 cm : 4 miles 7 cm : 28 miles ½ cm : 2 miles 7 ½ cm : 30 miles The distance between them is 30 miles.
2. **Recipe Scaling** A typical cookie dough uses flour to sugar to butter in the ratio 3:1:2. If I use 3 cups of flour, 1 cup of sugar and 2 cups of butter it makes 24 cookies. How much flour is needed to make 40 cookies? 	3 cups of flour : 24 cookies → divide by 3 1 cup of flour : 8 cookies 40 ÷ 8 = 5 so multiply by 5 5 cups of flour : 40 cookies We need 5 cups of flour.
3. **Mixing Paint** To make a shade of green paint, the ratio of blue paint to yellow paint is 3: 5. I mix up ¾ pint of green paint. How many fluid ounces of blue and yellow paint did I use? 	1 pint = 16 fluid ounces ¾ pint = ¾ x 16 = 12 fluid ounces 3 blue : 5 yellow 3 + 5 = 8 12 ÷ 8 = 1 ½ so multiply by 1 ½ 4 ½ blue : 7 ½ yellow We need 4 ½ fluid ounces of blue and 7 ½ fluid ounces of yellow paint.
4. **Comparing Speeds** A cyclist travels at an average speed of 12 miles every 45 minutes. At this speed, how far will they travel in 2 hours? 	12 miles : 45 minutes → divide by 3 4 miles : 15 minutes → multiply by 4 16 miles : 60 minutes (1 hour) → multiply by 2 Answer 32 miles in 2 hours
5. **Phone Data** A mobile phone plan charges $11 for every 4 GB of data. At the same rate, how much would 6 GB of data cost? 	$11 : 4 GB → divide by 2 $5.50 : 2 GB → multiply by 3 $16.50 : 6 GB So 6 GB costs $16.50
6. **Basketball Practice** During drills, the coach wants players to take layups and free throws in a ratio of 5: 3. If a player takes 72 shots, how many should be free throws? 	5 layups : 3 free throws Total is 5 + 3 = 8 72 ÷ 8 = 9 so multiply by 9 5 x 9 = 45 layups 3 x 9 = 27 free throws So 27 shots are free throws