

Reasoning and Problem Solving – Fractions – Year 5

1. Order of sales: Smartphones and Games Consoles joint top; Tablets; Laptops and PCs joint third; VR Headsets.

2. $\frac{9}{16}$ of sales were handheld devices.

Half of $\frac{8}{32}$ is $\frac{4}{32}$, so $\frac{4}{32} + \frac{3}{16} + \frac{1}{4} = \frac{2}{16} + \frac{3}{16} + \frac{4}{16} = \frac{9}{16}$

3.

Type of use	Fraction	Number of Devices Owned	Fraction
Study	$\frac{2}{5}$	2	$\frac{1}{1}$
Social	$\frac{2}{5}$	3	$\frac{7}{15}$
Work	$\frac{9}{10}$	4	$\frac{2}{15}$

4. They would have $\frac{23}{20}$ of the profit, which is $1\frac{3}{20}$ so they will have made more profit than the other company.

5. $\frac{2}{3} \times 4 = \frac{8}{3}$, $\frac{8}{3} + \frac{8}{10} = \frac{80}{30} + \frac{24}{30} = \frac{104}{30} = 3\frac{14}{30}$

6. They should order 140 pizzas and 180 bottles of juice.

7. The window banners will need to be $11\frac{1}{15}$ m long.

8. The vinyl stickers will need to be $12\frac{19}{20}$ m long.

9. The hessian bag would be best to order.

PCs could not go into a bag.

A console could only be placed in a bag with items weighing around $1\frac{1}{2}$ kg.

2 laptops could go into a bag, with an item less than 1 kg.

10.

Smartphones	Drones	Consoles	Tablets	Laptops	VR Headsets	PCs
$\frac{1}{5}$	$\frac{2}{3}$	$\frac{21}{5}$	$\frac{4}{5}$	$\frac{7}{3}$	$\frac{1}{2}$	$\frac{56}{5}$
$\frac{12}{60}$	$\frac{40}{60}$	$\frac{252}{60}$	$\frac{48}{60}$	$\frac{140}{60}$	$\frac{30}{60}$	$\frac{672}{60}$

11. Smartphones are most affected by the delivery problem.

12. Smartphones $\frac{4}{12}$ or $\frac{1}{3}$, Tablets $\frac{1}{8}$, VR Headsets $\frac{1}{4}$, Drones $\frac{3}{10}$

13.

Task	per day	Monday	Tuesday	Wednesday	Thursday	Friday
Stock Taking	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{3}{3}$		
Hang Banners	$\frac{2}{5}$	$\frac{2}{5}$	$\frac{4}{5}$	$\frac{5}{5}$		
Complete Accounts	$\frac{2}{9}$	$\frac{2}{9}$	$\frac{4}{9}$	$\frac{6}{9}$	$\frac{8}{9}$	$\frac{9}{9}$
Invite Regulars	$\frac{3}{7}$	$\frac{3}{7}$	$\frac{6}{7}$	$\frac{7}{7}$		

14.

Stock	Banner	Accounts	Contacts
Wednesday	Wednesday	Friday	Wednesday

15. $8\frac{9}{10}$ m of the carpet can be used.