Reasoning and Problem Solving - Fractions

Farmer Fred lives on his farm with all his farm animals.

He has many jobs to do every single day.

He is a fantastic farmer but unfortunately, he is not very good at maths.

He is going to need your help, I hope you have your fractions brain with you.

Today is going to be a busy day on the farm.



1a. Farmer Fred has divided his field up equally into 8 parts.

Use the key to colour the square or squares to match how much space each animal needs.

Animal	Fraction	Colour to shade	
Chickens	1 8	Red	
Pigs	1 4 Blue		
Sheep	1 2	- Green	
Horse	1 8	Orange	

1b. The goats need to have the same amount of field as the pigs. Circle all the fractions that are equivalent to $\frac{1}{4}$.



1c. Farmer Fred has 50 animals in total on his farm. 25 of his animals are chickens. Circle the equivalent fraction?



Farmer Fred is feeding his animals. Some of the animals share the same type of food.

2a. Compare the fractions of food each animal is having from the bag. Insert the correct symbol (> < or =) between the fractions.

$$\frac{1}{3} \qquad \frac{1}{5} \qquad \frac{1}{4} \qquad \frac{3}{4} \qquad \frac{2}{3} \qquad \Box$$
Chickens Ducks Sheep Goats Horse

Sheep

$$\frac{3}{4}$$

$$\frac{4}{6}$$

Donkeys

2b. Farmer Fred has two 1kg boxes of feed left for the cows. Box 1 has $\frac{1}{2}$ of the food left in and box 2 has $\frac{1}{3}$ left.



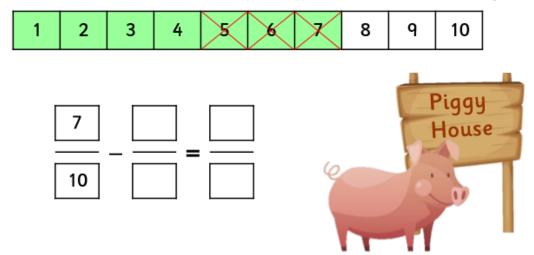
I am going to use the box with $\frac{1}{3}$ of the food left in first because that one has the most food left.

Is Farmer Fred correct? Explain.

panel the	at he need	s to put in	order befo	ore he sto	le has 5 pieces of fence arts. cordina to size.		
_28	7 8	<u>5</u> 	8	4 8			
Α	В	С	D	E			
3b. Farmer Fred says that if the denominator is the same, then the bigger the numerator the bigger the fraction. Is he correct?							
Farmer Fred is counting up the animals before he puts them to bed.							
4a. He starts with the chickens. $\frac{2}{7}$ of the chickens are in the coupe. $\frac{3}{7}$ go inside whilst Fred is counting.							
What fra	ction of th	e chickens	are now ii	nside the	coupe?		
4b. Farm In field 1	er Fred cou there are	ınts up all <u>3</u> . In field	his sheep, 12 there a	there are $\frac{8}{20}$. W	e 20 sheep altogether. Vhat fraction are in field 3?		

5a. Farmer Fred is counting the pigs in the pigsty. He has drawn a model to help him count them.

 $\frac{7}{10}$ of the pigs are in the sty. 3 of the pigs go back outside. Fill in the gaps in the number sentence to show what fraction are left in the sty.



5b. Before Farmer Fred finishes for the day he needs to put hay into each of the stables. $\frac{10}{18}$ of the stables need hay. He has put hay into $\frac{6}{18}$ of the stables. What fraction of the stables still need hay?



5c. Farmer Fred has got a bit confused. He says that if $\frac{10}{18}$ need hay then half of the stables don't need hay. Is he correct? Explain.

