

Reasoning and Problem Solving – Place Value Consolidation – Year 1

Hide and Seek

Once upon a time long, long ago, over the hill and far away in a beautiful castle there lived a kindly king and his son Prince Harry.

Prince Harry's best friend is Princess Megan, their favourite game is play hide and seek in the castle orchard where the trees grew tall and strong.



Harry is brilliant and hiding, today Meg is counting to 80.



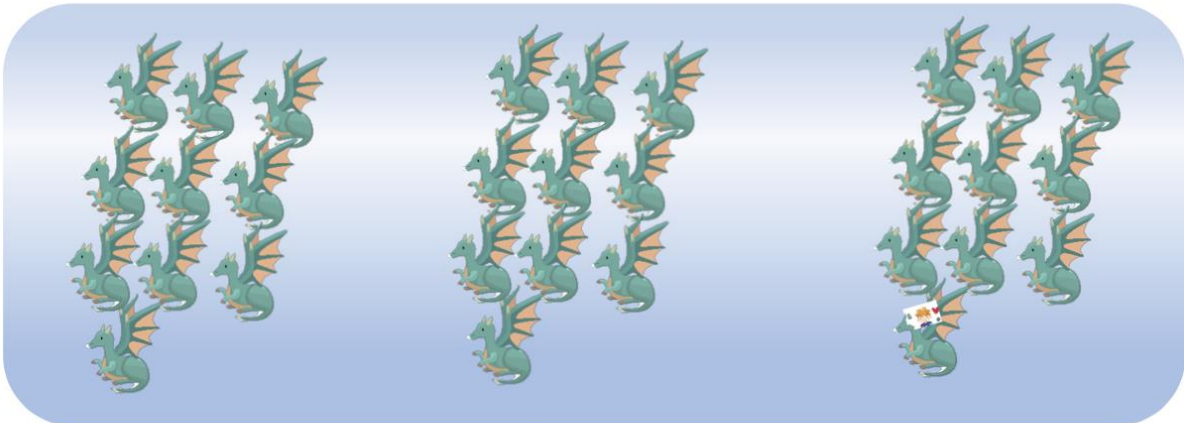
60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 80

Here I come ready or not!

1. Has Megan counted correctly? Explain your answer.

Meg looks for Harry, she can't find him! Meg is worried.

Suddenly, the sky is dark. Crowds of dragons fill the sky very far away.



Meg thinks she can see 3 dragons.

2. Is she right? Explain your answer.

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Harry is being kidnapped by the dragons!

The wicked witch has sent her dragons to steal the prince. A dragon is writing a message in the sky...



Pay 95 gold bars or you will never see the prince again!

The king goes to his gold store.

There are 9 bags of gold bars, each has 10 bars inside.



He has some single gold bars in a pile, but not enough to fill a bag.

3. How much gold could he have altogether? Explain your answer.



The king is counting his gold to pay the witch.
He takes 6 bags.

4. How many more bags does he need?

Wow gold is heavy!!

They need 23 horses to carry the gold.

The king's knight Sir Prancealot has an idea...



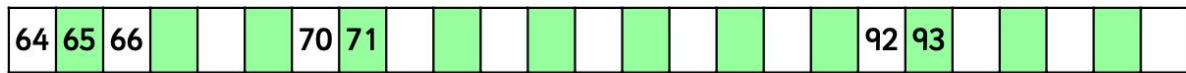
'We can ride in 3 groups of 10 and 1 group of 3 horses.'

5. Is the knight correct?

Explain your answer.

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The knight has created a counting board to check he has all 65 gold bars.



95 is less than
72



Oh dear! Sir Prancealot you
need to check your counting.

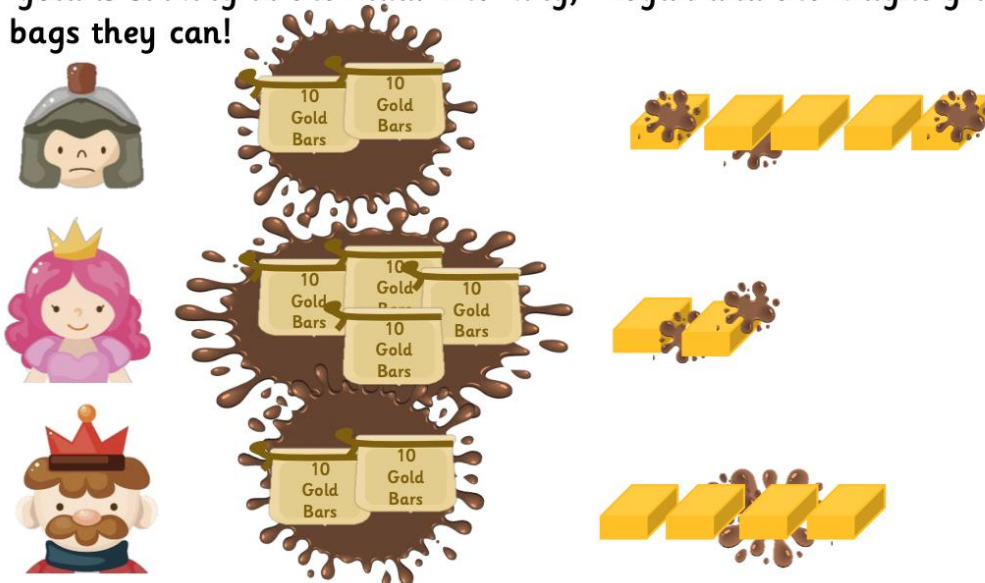
Princess Megan isn't sure this knight can save the prince.

6. What has Princess Megan noticed?

Sir Prancealot is finally ready to go!
He rides off towards the witches cave...
straight into a bog!



The gold is sinking in the mud! The king, Megan and the knight grab all
the bags they can!



7. Who has the most gold and who has the least? Explain your answer

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Princess Meg scoops up the gold and jumps on her trusty horse. She will save the prince herself!

When she arrives at the cave an elf blocks her path. He has a riddle Megan has to answer to pass.

8. Fill in the blanks using $<$ or $>$ to help Megan pass by.



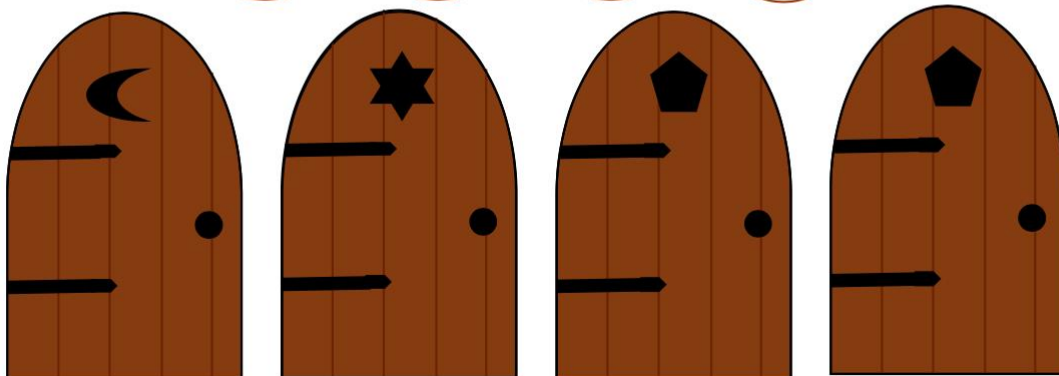
98	<input type="text"/>	67	<input type="text"/>	82
42	<input type="text"/>	71	<input type="text"/>	89
29	<input type="text"/>	68	<input type="text"/>	86

Princess Megan's maths is really helpful today!
Megan creeps into the cave, there are three doors.
The elf likes Meg and decides to help.



You must put the numbers in order, from lowest to highest on the doors, then they will open.

9. Draw a line from each number to the correct door.



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Prince Harry is safe at last, but wait... a witch appears...



You think you are so clever? One last riddle, if you fail you both will stay.
If you win you better run away



10. Use the digits in the jewels to fill the spaces with numbers in order from highest to lowest. You can use the digits more than once.



39					73			88	
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Home safe and sound with the King, Princess Meg and Prince Harry play a safer game.

Try to help Meg win?

11. Move 2 jewels so Harry has 1 less than Meg, and the King has 1 less than Harry.



Meg wins and Harry asks her to marry him!



Marry you? I'm going to become a knight and have lots more adventures. Do you want to come along with me instead?

"Yes!" says Harry and they live BRAVELY ever after!

ANSWERS

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1. She has not counted correctly. She should have gone from 69 to 70 not 69 to 80.
2. Megan is incorrect. There are not 3 dragons, there are 3 groups of 10 dragons which means there are 30 dragons altogether.
3. He has 9 bags of 10 bars which is 90 gold bars in total. The single gold bars could be anywhere between 1 and 9, so he has between 91 and 99 gold bars.
4. He has 60 gold bars, he needs 95. So he needs 35 more bars, which will be 3 bags of 10 bars, and 5 loose bars.
5. He is not correct, 3 groups of 10 horses and 3 more is 33. He needs 2 groups of 10 horses and 3 more.
6. Princess Megan has noticed that the knight has miscounted on his board he has moved from 70s to 90s instead of the 80s. He also thinks that 95 is less than 72, but it is actually more than 72.
7. Princess Meg has saved the most gold bars, she has 4 bags of 10 which is 40 and 2 singles so 42 altogether. The king has 2 bags and 4 more, so 24 bars. Prince Harry has 2 bags and 5 singles so he has 25 bars.

8.

98	>	67	<	82
42	<	71	<	89
29	<	68	<	86

9. Number order on doors should read 57, 74, 91, 99.

10. There are a variety of answers for example:

39	41	42	51	52	73	74	75	88	91
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39	42	44	45	47	73	75	79	88	92
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39	51	52	54	55	73	77	79	88	94
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39	52	54	55	71	73	75	79	88	94
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11. Meg should have 7, Harry should have 6 and the King should have 5.