TYPES OF PUZZLE

| Introduction Puzzle/Task | Type | Example | Notes/SATs example |
| :---: | :---: | :---: | :---: |
| 1.1 | How many more do they need? | Two of the suspects need 20 casks of water for their journey altogether. One of them has 6 casks and the other has 9 casks. How many more casks do they need? | 2003 Paper B Question 6 |
| 1.1 | Repeated Subtraction (and sometimes addition) | One gang of criminals starts with 20 members. 3 members become ill and have to stay in camp. Another 8 members get lost in a sandstorm. How many criminals are left? | 2016 Paper 3 Question 6 |
| 1.2 | How much more money do they need | Mahotep wants to buy 3 pieces of blue cheese, 4 onions and 6 pieces of meat. He only has $£ 40$. How much more money does he need? | 2017 Paper 3 Question 5 |
| 1.2 | How much extra | 6 sacks and 9 boxes were taken by Mahotep. He wanted to steal bread worth £50. How much extra did he take? | Rewording of change question - not appeared in SATs yet but likely to in the future |
| 1.2 | Change | How much change did Minhoti get from $£ 100$ if she bought all 3 types of cheese, 4 loaves of bread and 3 bananas? | 2015 Paper B Question 10 |
| 1.3 | Share equally with addition | 2 of the suspects buy some silver dishes. Tafista buys 23 and Fipeses buys 45. They then share the silver dishes equally between them. How many silver dishes do they have each now? | 2013 Paper A Question 7 |
| 1.3 | Share equally with multiplication | Hatshep has 6 bodyguards. She buys 4 boxes of arrows. The bodyguards share the arrows out equally between them. How much has Hatshep spent on each bodyquard? | 2015 Sample Paper 2 Question 16 |
| 1.3 | Share equally to find number of people | Some of the towns share their soldiers. There are 48 soldiers in total and each of the towns get 6 when they have been shared out equally. How many towns shared their soldiers? | 2017 Paper 3 Question 2 |
| 2.1 | Several multiplications and addition | How many chests could the criminal steal if they use 6 carts which can each hold 5 chests of treasure, and 3 chariots that hold 7 chests? | 2010 Paper B Question 6 |
| 2.2 | Several multiplications and subtraction | Arish has 4 arenas that can each hold 6 people. Zagazig has 3 arenas that can each hold 2 people. How many more people can the arenas in Arish hold than the arenas in Zagazig? | 2000 Paper A Question 6 |
| 2.3 | 3 multiplications | Tafista keeps his arrows in bundles of 3. They are then put into chests that hold 7 bundles. 8 chests are loaded into his cart. How many arrows does he take with him? | 2016 Paper 3 Question 11 |
| 5 | Rounding | Fipeses rounds the cost of the loaves of bread and onions to the nearest pound and estimates how much it will cost to buy 3 loaves of bread and 4 onions. He then adds the cost accurately. What is the difference between the 2 totals? | 2004 Paper B Question 13 |
| 5 | Difference between least/most expensive | Fastapi bought the most expensive and the least expensive piece of cheese. What is the difference in price between them? | 2004 Paper A Question 10 |
| 5 | Most they can pay | Hatshep buys 4 pieces of meat, 5 loaves of bread and 6 pieces of cheese. What is the most she can pay? | 2008 Paper A Question 11 |
| 5 | Offer saving | Tefmepi bought 4 arrows of all 3 types. How much did he save by using the offer, rather than paying full price? | 2001 Paper A Question 14 |
| 6 | What's the cost of one? | The granary in Qina has a total of 25 loaves of bread which are split into 5 sacks. The granary in Sohag has a total of 42 loaves of bread which are split into 7 identical sacks and 1 box. How many loaves are in the box in Sohag? | 2016 Paper 2 Question 9 |
|  | Two divisions and subtraction | The third visitor was Minhoti. She bought 3 long spears that cost $£ 18$ whilst Mahotep bought 4 axes that cost $£ 34$. How much more does a long spear cost than an axe? | 2015 Sample Paper 3 Question 10 |
| 7 | Inverse share equally | Tafista orders her 8 bodyguards to buy a pet lion for her husband. They decided to share the cost equally amongst themselves and each pay $£ 6$. How much money does Tafista owe her bodyguards for the lion? | This type of question has never appeared in the SATs, but it is likely it will in the future. |
| 7 | Inverse change | Tefmepi's decided to buy some more. She buys 4 identical brooches. She pays the shopkeeper with $£ 30$. He gives Tefmepi $£ 6$ in change. What is the cost of ONE brooch? | 2017 Paper 2 Question 19 |
| 8 | Remainders | When Fastapi's gang arrives at a camp site for the night there are 6 chariots that contain 4 ruffians and 7 wagons that contain 5 ruffians. Fastapi has tents that can hold 5 people. How many tents does he need to use to ensure everyone gets a good night's sleep? | 2010 Paper B Question 15 |
| 9 | Same cost | Fipeses needs to get her gang to the pyramids. She purchases 3 new chariots and 6 new wagons. The cost of all of the new chariots is the same as the cost of all of the new wagons. If a wagon costs £8, how much does a chariot cost? | 2017 Paper 3 Question 14 |

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