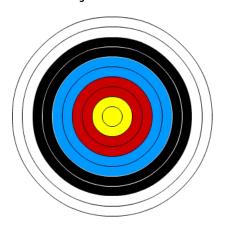


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In Archery the scoring is based on a ten ring target, made up of 5 colours. The points are as follows:

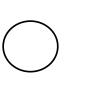


Gold inner	10 points
Red inner	8 points
Blue inner	6 points
Black inner	4 points
White inner	2 points

Gold outer	9 points
Red outer	7 points
Blue outer	5 points
Black outer	3 points
White outer	1 point

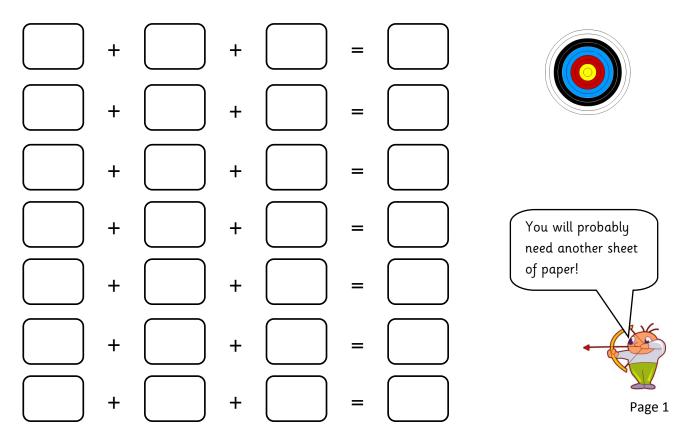
Arrows which land on the line are given the higher score.

1. What is the highest possible score with three arrows?



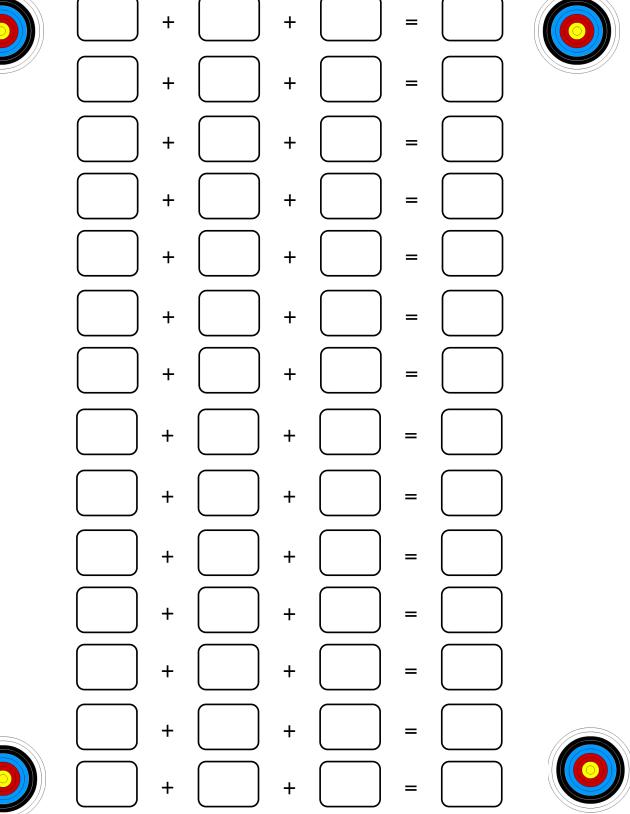


2. If the three arrows landed in red and/or blue, what are all the possible total scores?



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Answers

Page 1											
1. 30											
2.											
8	+	8	+	8 = 24		8	+	8	+	7 = 2	23
8	+	8	+	6 = 22		8	+	8	+	5 = 2	21
8	+	7	+	7 = 22		8	+	7	+	6 = 2	21
8	+	7	+	5 = 20		8	+	6	+	6 = 2	20
8	+	6	+	5 = 19		8	+	5	+	5 = 2	8
7	+	7	+	7 = 21		7	+	7	+	6 = 2	20
7	+	7	+	5 = 19		7	+	6	+	6 = 2	19
7	+	6	+	5 = 18		7	+	5	+	5 = 1	17
6	+	6	+	6 = 18		6	+	6	+	5 = 1	17
6	+	5	+	5 = 16		5	+	5	+	5 = 2	15

The arrows could land in a different order, but the possible scores are:

 $24, \ \ 23, \ \ 22, \ \ 21, \ \ 20, \ \ 19, \ \ 18, \ \ 17, \ \ 16, \ \ 15.$