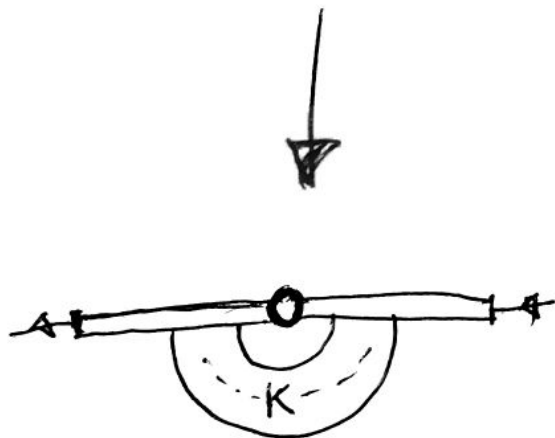$$a^{(2)} = a_{100}$$ $\qquad$ [note $a_{010}, a_{001} = 0$] $\qquad$ # 1

$$a^{(4)} = a_{200} + a_{110} + a_{101}$$ $\qquad$ 3

$$a^{(6)} = a_{300} + a_{210}^{\vee} + a_{201}^{\checkmark} + a_{120} + a_{102} + a_{111}^{\checkmark}$$ $\qquad$ 6

$$a^{(8)} = a_{400} + a_{310} + a_{301} + a_{220} + a_{202} + a_{211} + a_{130} + a_{121} + a_{112}$$
$$+ a_{103}$$ $\qquad$ 10

$$a^{(10)} = a_{500} + a_{410} + a_{401} + a_{320} + a_{302} + a_{311} + a_{230} + a_{221} + a_{140} + a_{131} + a_{122}$$
$$+ a_{203} + a_{212} + a_{104} + a_{113}$$ $\qquad$ 15

rainbows