Precalculus Practice S.CP.B.9: Binomial Probability 1 www.jmap.org

1. A fair coin is tossed 12 times. What is the probability of obtaining exactly 10 heads?
[A] 0.0029
[B] 0.1208
[C] 0.0161
[D] 0.0537

NAME: $\qquad$
6. You are going to toss a coin five times. Which has the same probability as $P(5$ tails $)$ ?
[A] $P$ ( 2 heads and 3 tails)
[B] $P$ (3 heads and 2 tails)
[C] $P(4$ heads and 1 tail $)$
[D] $P(5$ heads $) \quad$ [E] $P(1$ head and 4 tails $)$
7. A fair coin is tossed 8 times. What is the probability of obtaining exactly 6 heads? Express the answer both in terms of ${ }_{n} \mathrm{C}_{k}$ and as a four-place decimal.
8. A fair coin is tossed 9 times. What is the probability of obtaining exactly 1 head? Express the answer both in terms of ${ }_{n} \mathrm{C}_{k}$ and as a four-place decimal.
9. A fair coin is tossed 16 times. What is the probability of obtaining exactly 1 head? Express the answer both in terms of ${ }_{n} \mathrm{C}_{k}$ and as a four-place decimal.
10. A fair coin is tossed 12 times. What is the probability of obtaining exactly 1 head? Express the answer both in terms of ${ }_{n} \mathrm{C}_{k}$ and as a four-place decimal.

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[1] C
[2] B
[3] D
[4] A
[5] B
[6] D
[7] ${ }_{8} \mathrm{C}_{2}(.5)^{8} \approx 0.1094$
[8] ${ }_{9} \mathrm{C}_{1}(.5)^{9} \approx 0.0176$
[9] ${ }_{16} \mathrm{C}_{1}(.5)^{16} \approx 0.0002$
$[10] \quad{ }_{12} \mathrm{C}_{1}(.5)^{12} \approx 0.0029$

