

## Theoretical probability and counting



| Name | C  | lass | Date   |
|------|--|------|--|
| 1    | What does <sub>7</sub> P <sub>4</sub> equal?  A 0 B 3 <sup>5</sup> C 840 D 5040  | 2    | How many arrangements can a 4-digit number be made from the numbers 2, 3, 4, 5, 6 using each number once?  A 120 B 256 C 1024 D 3125   |
| 3    | How many arrangements of a 6-subject schedule can be made from 8 subjects?  A 48 B 720   | 4    | How many different <b>combinations</b> can be made from picking 2 snacks out of <b>chips</b> , <b>pretzels</b> , <b>nachos</b> , and <b>popcorn</b> ?                            |
| 5    |  | AE   |  |
|      | PREVIEW  |      |  |
| 7    | Please <u>Sign In</u> or <u>Sign Up</u> to download the printable version of this worksheet  |      |  |
|      | B 720<br>C 5040<br>D 30,240  |      | $\mathbf{B} = \frac{2}{12}$ $\mathbf{D} = \frac{2}{36}$  |
| 9    | There are 7 green and 8 yellow marbles in a bag. If one is picked, replaced and then another one is picked, what is the probability of picking two greens?  A $\frac{7}{15}$ C $\frac{14}{30}$ B $\frac{7}{30}$ D $\frac{49}{225}$ |      | If a six-sided die is rolled and a coin is flipped, what is the <b>probability</b> getting a 2 or 4 and a head?  A $\frac{1}{4}$ C $\frac{1}{6}$ B $\frac{1}{5}$ D $\frac{1}{8}$ |



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Class Date Name How many arrangements can a 4-digit What does P4 equal? number be made from the numbers 2, 3, 4, 5, 6 using each number once? A O B 35 C A) C 840 **B** 256 **D** 5040 C 1024 D 3125 3 How many arrangements of a 6-subject How many different combinations can schedule can be made from 8 subjects? be made from picking 2 snacks out of chips, pretzels, nachos, and popcorn? A 48 **B** 720 5 B **PREVIEW** Please Sign In or Sign Up to download 7 the printable version of this worksheet  $(\mathbf{C})$ **B** 720 C 5040  $B \frac{2}{12}$ **D** 30,240 9 There are 7 green and 8 yellow marbles 10 If a six-sided die is rolled and a coin is in a bag. If one is picked, replaced and flipped, what is the probability getting then another one is picked, what is the a 2 or 4 and a head? probability of picking two greens? (C)  $c \frac{14}{30}$