

Name: _____

Date: _____

Unit 9 Review

For each type of question, the achievement level is indicated. Showing work is an important strategy in communicating your knowledge and ideas so please be thorough.

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| Learning Goal 9.1 | I can calculate probabilities. |
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| Developing | |
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| 1. When rolling a six-sided fair die, what is the probability of rolling <ol style="list-style-type: none"> a 3? an even number? a number greater than 4? a number that is at least 3? | 2. If you have a pen, a pencil, a marker, an eraser and a pencil sharpener in a pencil case, what is the probability you would remove <ol style="list-style-type: none"> a pencil? a writing stick? not a writing stick? |
| 3. If you have a spinner with the letters P, E, A, R, and K on it, what is the probability of spinning <ol style="list-style-type: none"> a P? a vowel? a consonant? a letter from the word PEAR? | 4. If you have a spinner with the colours red, orange, yellow, green, blue and purple, what is the probability of spinning <ol style="list-style-type: none"> red? a primary colour? a secondary colour? |
| Proficient | |
| 5. You have two bags of marbles and each bag containing a blue, red, yellow and green marble. If one marble is taken from each bag, <ol style="list-style-type: none"> Draw a tree diagram to show the sample space. What is the probability that one of the marbles is green? What is the probability that the two marbles are the same colour? What is the probability that one of the marbles is not red. | 6. Three frozen treats are flavoured raspberry, lemon and orange. Without looking, Tara chose a treat, then decided she didn't want it. She replaced it and without looking, chose another. <ol style="list-style-type: none"> Create a table to show the sample space. What is the probability that she picked the kind she didn't like the second time as well? What is the probability that she chose a different flavour than the first on her second pick? |
| 7. You have 4 different t-shirts (white, green, orange and brown), 3 sweaters (black, grey and blue) and 2 pairs of pants (blue and brown). <ol style="list-style-type: none"> Draw a tree diagram to show the sample space of all possible outfits. What is the probability that you are wearing a white shirt? What is the probability that your sweater and pants are the same colour? What is the probability that your t-shirt and pants are the same colour? | 8. You are rolling 2 six-sided fair dice. <ol style="list-style-type: none"> Create a table to show the sample space of the sum of the two dice. What is the probability that the sum is 6? What is the probability that dice landed on the same number? What is the probability that the sum is less than 6? What is the probability that the sum is at least 8? |

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| Extending | |
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| <p>9. An ice cream shop has 30 different flavours of ice cream, 3 different cones and 5 toppings.</p> <ul style="list-style-type: none">a. How many possibilities of single scoop ice cream cones are there if you do not have to choose a topping?b. How many possibilities of double scoop ice cream cones are there if you do not have to choose a topping? | <p>10. If you have 2 decks of cards and draw a card from each of them, how many possible card pairings are there?</p> |
| <p>11. You roll 2 four-sided dice.</p> <ul style="list-style-type: none">a. Find $P(1, 1)$b. Find $P(\text{neither is a } 1)$c. Find $P(\text{both are greater than } 2)$d. Find $P(\text{both are even numbers})$ | <p>12. You draw a card from a deck of cards, replace it, shuffle and draw again.</p> <ul style="list-style-type: none">a. Find $P(\text{the same card was drawn twice})$b. Find $P(\text{both cards are red})$c. Find $P(\text{one is a number, the other a face})$ |

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| Learning Goal 9.2 | I can demonstrate an understanding of data analysis. |
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Developing

1. Calculate the mean, median, mode and range of the following data sets.

a. {7, 4, 6, 3, 6, 2, 7, 4, 3, 6}

b. {3, 7, 4, 3, 7, 7, 4, 4, 2, 3}

c. {8, 7, 2, 3, 9, 4, 3, 6, 5, 7}

d. {4, 9, 8, 3, 4, 3, 9, 2, 9, 9}

Proficient

e. {18, 61, 62, 31, 59, 52, 18, 10, 22, 61}

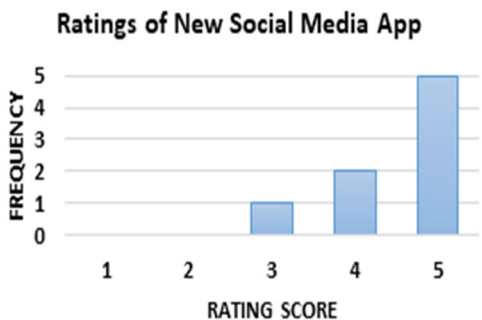
f. {93, 19, 30, 97, 79, 68, 67, 25, 23, 41}

g. {84, 73, 77, 49, 63, 84, 12, 59, 64, 65}

h. {24, 50, 34, 37, 44, 41, 43, 49, 97, 84}

Extending

i.



j.

