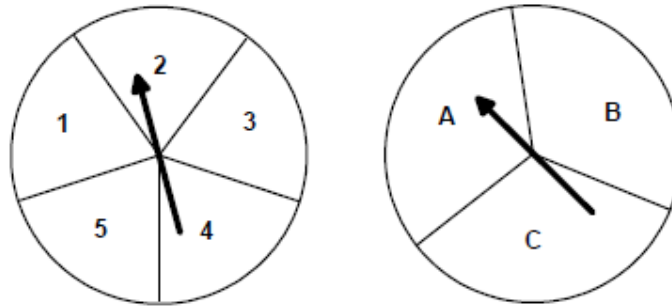


Grade 8 Review for Final – Unit 7

Multiple Choice Section

1. For the spinners shown, what is the probability of spinning an even number and the letter A?



- A. $\frac{2}{15}$
- B. $\frac{1}{5}$
- C. $\frac{3}{8}$
- D. $\frac{11}{15}$
2. Julia has 10 loonies, 4 toonies and 6 quarters in her purse. She removes a coin from her purse without looking, notes the value, then returns the coin to her purse. The process is repeated. What is the probability of selecting a toonie, then a loonie?

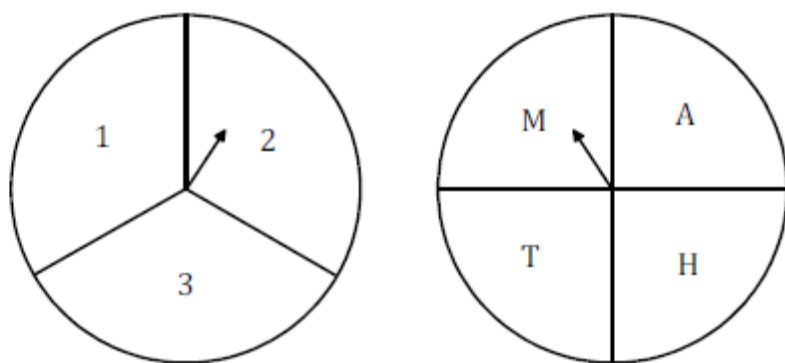
- A. $\frac{1}{10}$
- B. $\frac{2}{19}$
- C. $\frac{1}{5}$
- D. $\frac{10}{49}$

3. A bag contains coloured marbles. There is a $\frac{1}{5}$ chance that the marble selected will be red, a $\frac{3}{10}$ chance of green and $\frac{1}{2}$ chance of blue. A marble is selected and returned to the bag. The process is repeated. What is the probability of selecting a red, green and blue marble?
- A. $\frac{3}{100}$
- B. $\frac{3}{50}$
- C. $\frac{5}{17}$
- D. $\frac{10}{10}$
4. Which type of graph is best used to display percentages?
- A. Bar graph
- B. Circle graph
- C. Line graph
- D. Pictograph
5. A mathematics class ordered 4 pizzas and ate $\frac{3}{5}$ of each pizza. What fraction of pizza was left over?
- A. $\frac{1}{10}$
- B. $\frac{3}{20}$
- C. $1\frac{3}{5}$
- D. $2\frac{2}{5}$

6. Which graph would be used to show change over time?

- A. bar graph
- B. circle graph
- C. line graph
- D. pictograph

7. What is the probability of spinning an even number and not an H?



- A. $\frac{1}{12}$
- B. $\frac{1}{6}$
- C. $\frac{1}{4}$
- D. $\frac{1}{3}$

8. The first letter of each month is written on a card.
What is the probability of drawing an A, replacing it, and then drawing a J?

- A. $\frac{1}{24}$
- B. $\frac{1}{12}$
- C. $\frac{1}{2}$
- D. $\frac{2}{3}$

9. A paper bag contains two red marbles, three green marbles, and seven black marbles. If you reach in and pick a marble without looking, what is the probability that it is red or black?

(A) $\frac{1}{4}$

(B) $\frac{1}{3}$

(C) $\frac{2}{3}$

(D) $\frac{3}{4}$

10. Each letter of the word BESTSELLER is printed on a separate card. The cards are shuffled and placed face down. What is the probability of **NOT** picking a 'S'?

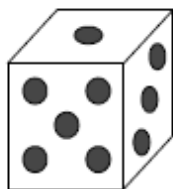
(A) $\frac{1}{5}$

(B) $\frac{1}{4}$

(C) $\frac{3}{4}$

(D) $\frac{4}{5}$

11. A regular die is rolled 60 times. How many times would you expect a number **greater than 4** to show up?



(A) 20

(B) 30

(C) 40

(D) 60

12. In a group of 41 people, 33 of them are shorter than 2 metres and the rest are taller than 2 metres. What is the probability that a randomly selected person is taller than 2 metres?

A) $\frac{1}{41}$

B) $\frac{1}{33}$

C) $\frac{8}{41}$

D) $\frac{33}{41}$

13. Using the circle graph, which of these statements is true?

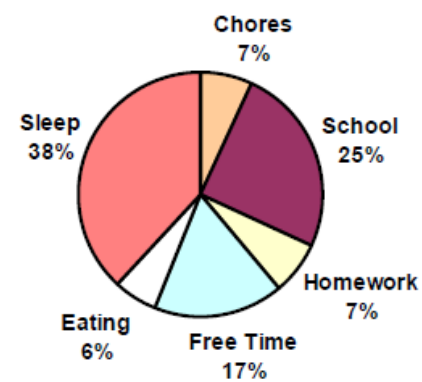
A) Over half of the day is taken up with sleeping and eating.

B) School and sleeping take up more than half of the day.

C) The combined time spent on chores and homework is greater than the amount of free time.

D) School takes up the most time every day.

A Day in the Life of a Student



Long Answer Section

14. The pocket of a golf bag contains 9 white tees, 7 red tees, and 4 blue tees. The golfer removes 1 tee from her bag without looking, notes the colour, then returns the tee to the pocket.

The process is repeated.

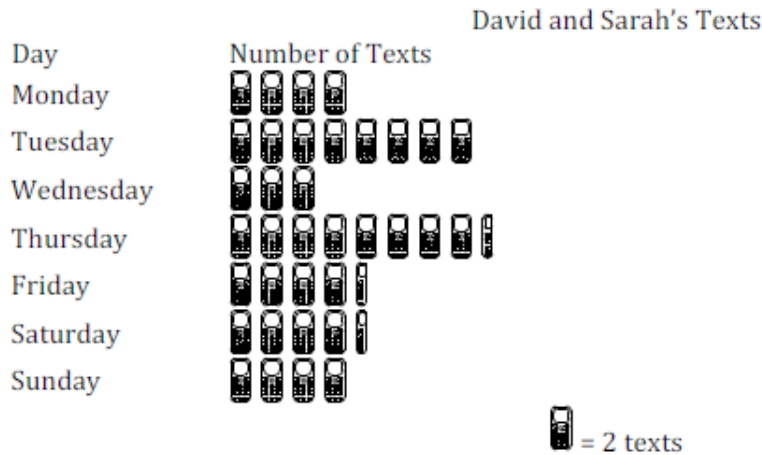
Find the probability of each event.

a) Both tees are red.

b) The first tee is not red and the second tee is blue.

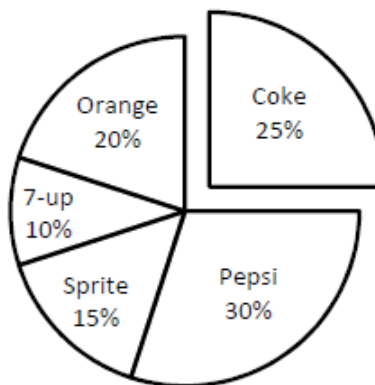


15. David and Sarah share a family plan.
This pictograph shows the number of texts that David and Sarah made in one week.



- A. What other type of graph can be used to display this information?
- B. Give one advantage and one disadvantage.
16. A group of grade 8 students were surveyed and asked what their favourite soft drink was. The results are graphed below.

Favourite Soft Drink



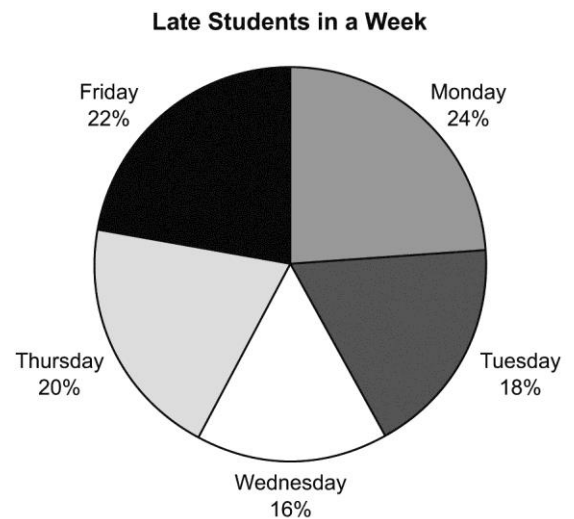
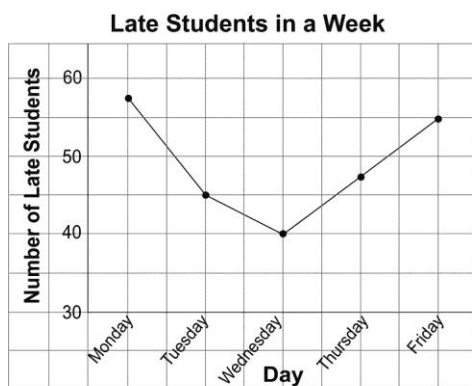
- A. How is the graph misleading? [1 Mark]
- B. Why would the creator of this graph choose to portray the data this way? [1 Mark]

17. A coin is tossed and a regular tetrahedron labelled 5, 6, 7, and 8 is rolled.
- Find the probability of tossing heads and rolling an 8.
 - Find the probability of tossing heads or tails and rolling an even number.



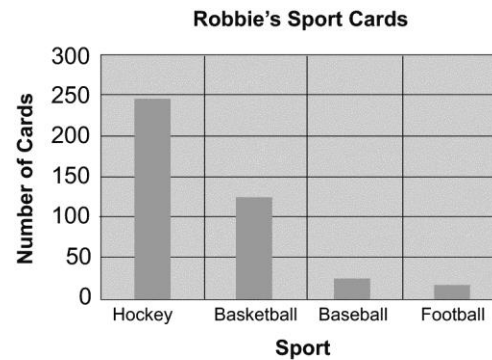
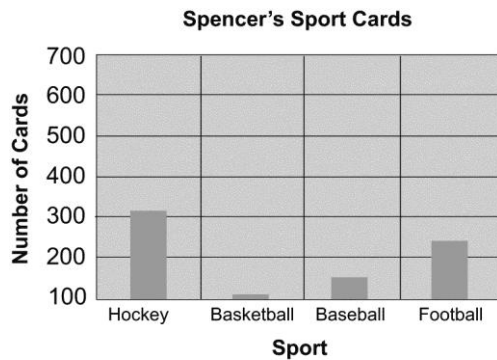
18. On a particular day in July, there is a 20% probability of rain in Vancouver, a 65% probability of rain in Calgary, and a 75% probability of rain in Saskatoon. What is the probability that it will rain in all 3 cities on that day?

19. Each graph displays the number of students who were late for class at A.R.C. High School in one week.



- What is an advantage of each graph?
- What is a disadvantage of each graph?
- Which graph would you choose to show how the number of late students changed throughout the week?
- Which graph would you choose to show that the number of late students was about the same each day?

20. These graphs show the number of sport cards Robbie and Spencer have each collected.



- a) What impression does each graph give?
- b) Who do you think drew the graphs, Robbie or Spencer? Why?
- c) What would you change about the graphs to present the data accurately?

21. A spinner has three congruent sectors coloured orange, green, and purple.

- a) Use the rule to find the probability of each event:
 - i) Landing on orange, then landing on purple.
 - ii) Landing on the same colour 2 times in a row.

22. A bag contains 2 red marbles, 1 white marble, and 3 blue marbles. A marble is removed without looking, its color is recorded, and it is returned to the bag. Find the probability of each event:

- a) Removing a red marble, then a white marble, then a blue marble.
- b) Removing a marble that is not red 3 times in a row.
- c) Removing a blue marble, then a black marble, then a red marble.
- d) Removing a blue marble, then a white marble, then 3 red marble