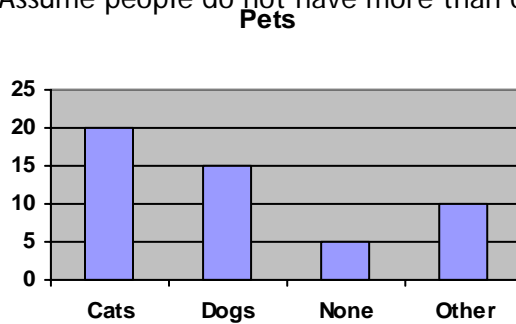
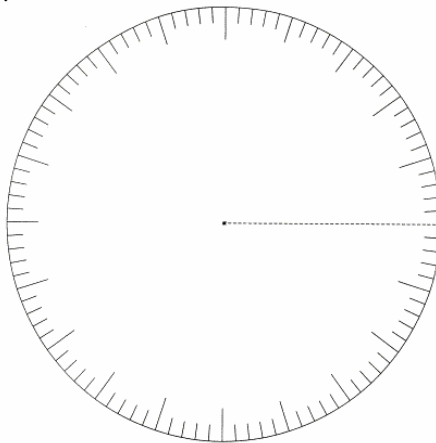


- Show all work on this sheet. No attached pages!
- Total Points:

1. Lucy wanted to know how many people in her class owned a cat or a dog. Her results are shown in the bar graph below. Assume people do not have more than one pet. (4 pts)



- What is the most popular pet? _____
 - How many people were surveyed about their pets? _____
 - What percentage of the people surveyed owned a dog? _____
 - What could be the response of the people in the "Other" category? _____
2. During a recent survey at a sporting good store customers were asked which sneakers they preferred. 25% answered Reebok, 20% said Nike and 30% choose Converse. Represent this information in a labeled pie chart. (2 pts)

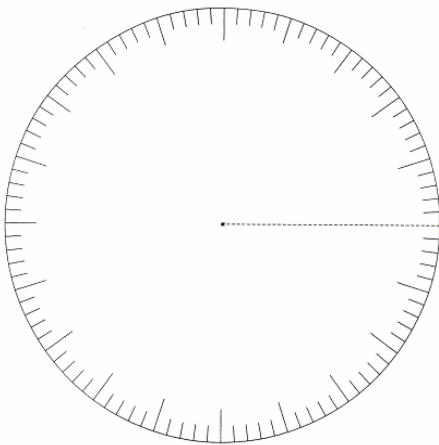


3. Last week at the mall people were asked what their favourite TV show is, the results are listed in the table below. (3 pts)

TV Show	Number of People
Survivor	20
American Idol	48
CSI	90
Deal or No Deal	16
Family Feud	26

a) How many people in total were surveyed? _____

b) Determine the percentages of each TV show and represent the data in a pie graph.



Percentages

Survivor _____

American Idol _____

CSI _____

Deal or No Deal _____

Family Feud _____

4. The Math 11 Essentials class collected weather data for a two week period, their data is shown below. (5 pts)

Date (October)	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Temperature (°C)	2°	-1°	5°	-4°	3°	-7°	6°	1°	2°	-3°	-1°	1°	4°	0°

a) Which day had the highest temperature? _____ Lowest temperature? _____

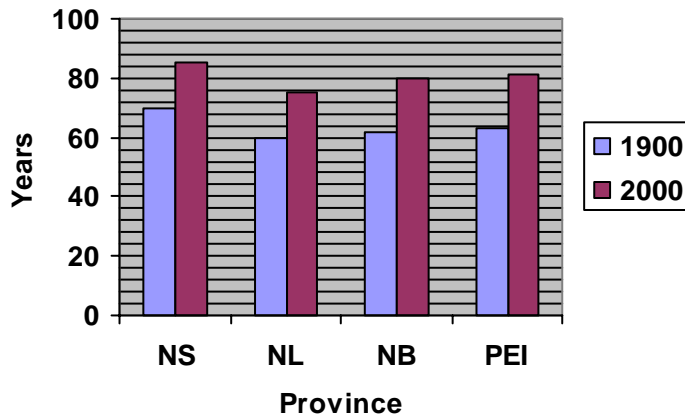
b) Between which two days was there the greatest change in temperature? _____

c) Between which two days was there the smallest change in temperature? _____

d) Plot the data above in a line graph. Remember to label the axis.

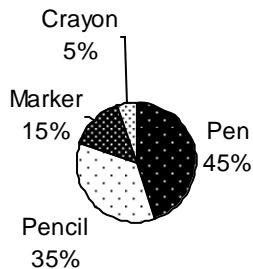


5. The graph below show the average life expectancy of people in Atlantic Canada in 1900 and 2000. (4 pts)



- a) Which province had the lowest life expectancy in 1900? _____ In 2000? _____
- b) Which province had the highest life expectancy in 1900? _____ In 2000? _____
- c) Which province had the biggest change in life expectancy? _____
- d) Which province had the smallest change in life expectancy? _____

6. The pie chart below shows the different objects students use to write dates in their agenda. (3 pts)



- a) If 300 people were surveyed how many people would use pen?
- b) If 400 people were surveyed how many more people would use pencil than crayon?

7. Majeed wants to take the bus from Lacewood Drive to Gottingen Street. The bus schedules that he needs to use are shown below. Describe a route that Majeed could use to reach his destination. Include possible times, stops and bus numbers. (3 pts)

Route #42 only operates during university calendar year.
LACEWOOD-DALHOUSIE Effective January 2, 2006

42 To Dalhousie					To Lacewood				
Leave Lacewood Terminal	Titus & Main	Village at Bayers Road	Robie & Quinpool	Arrive South & LeMarchant	Leave South & LeMarchant (DAL)	Robie & Quinpool	Village at Bayers Rd	Alma & Dutch village Rd	Arrive Lacewood Terminal
0935	0643	0880	1997	GoTime	0285	8157	0077	0795	GoTime

Monday to Friday

655a	701a	705a	716a	722a	725a	731a	742a	746a	753a
755a	801a	805a	816a	822a	825a	831a	842a	846a	853a
825a	831a	835a	846a	852a	855a	901a	912a	916a	923a
855a	901a	905a	916a	922a	925a	931a	942a	946a	953a
925a	931a	935a	946a	952a	955a	1001a	1012a	1016a	1023a
955a	1001a	1005a	1016a	1022a	1025a	1031a	1042a	1046a	1053a
1025a	1031a	1035a	1046a	1052a	1055a	1101a	1112a	1116a	1123a

7 **ROBIE**
Robie to Gottingen via South St & Downtown

Leave Northridge Rd	Robie & Lady Hammond	Robie & Quinpool (South Bound)	South & Barrington	Barrington & Duke (North Bound)	Gottingen & Young	Arrive Novalea (Samuel Prince Manor)	GoTime
0840	0166	0173	0180	0053	0192	GoTime	

Monday to Friday

600a	604a	614a	621a	628a	637a	645a
620a	624a	634a	641a	648a	657a	705a
640a	644a	654a	701a	708a	717a	725a
700a	704a	714a	721a	728a	737a	745a
720a	724a	734a	741a	748a	757a	805a
740a	744a	754a	801a	808a	817a	825a
800a	804a	814a	821a	828a	837a	845a

7 **ROBIE**
Gottingen to Robie via Downtown and South St

Leave Novalea (Samuel Prince Manor)	Gottingen & Young	Barrington & Duke (South Bound)	Barrington & Morris	Robie & Quinpool (North Bound)	Robie & Lady Hammond	Arrive Northridge Rd	GoTime
0162	0198	0002	0207	0213	0221	GoTime	

Monday to Friday

605a	612a	620a	627a	636a	643a	647a
625a	632a	640a	647a	656a	703a	707a
650a	657a	705a	712a	721a	728a	732a
710a	717a	725a	732a	741a	748a	752a
730a	737a	745a	752a	801a	808a	812a
750a	757a	805a	812a	821a	828a	832a
810a	817a	825a	832a	841a	848a	852a

8. Based on the flight schedule below, answer the following questions. (6 pts)

Note: Montreal and Toronto are one hour behind Halifax and the times on the schedule are in local times.

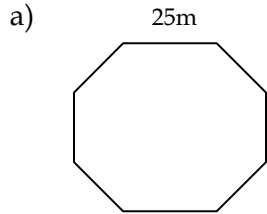
Review your itinerary

Flight	From	To	Date	Depart	Arrive	Stops	Aircraft	Fare Type	Meal Service*
AC601	Halifax (YHZ)	Toronto (YYZ)	Jun-13	06:00	07:20	0	319	Tango	F
AC404	Toronto (YYZ)	Montreal (YUL)	Jun-13	09:00	10:10	0	320	Tango	
AC660	Montreal (YUL)	Halifax (YHZ)	Tue Jun-20	07:50	10:15	0	320	Tango	F

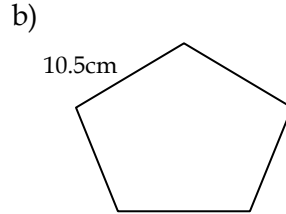
- a) How long is the flight from Halifax to Toronto? _____
- b) What day of the week are you leaving Halifax? _____
- c) How many days are you spending in Montreal? _____
- d) How long is the flight from Montreal to Halifax? _____
- e) Are you flying direct from Halifax to Montreal? Explain your answer. _____
- f) What is the number of the flight from Toronto to Montreal? _____

- Show all work on these sheets. No attached pages
- Total Points: 35

1. Find the perimeter of the regular polygons below. (2 pts)

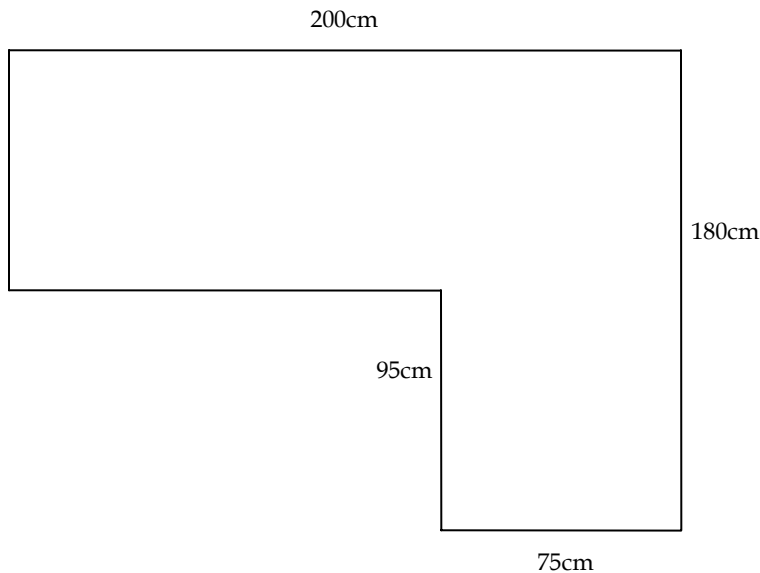


a) _____



b) _____

2. Find the area and perimeter of L-shaped flower garden below. Show your work. (4 pts)

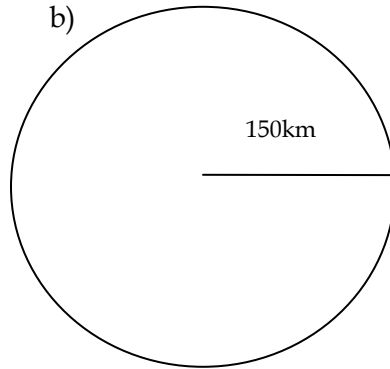
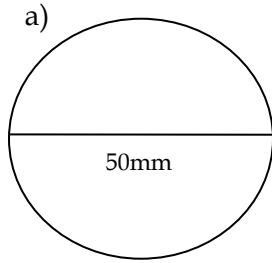


3. Ron's contractor tells him that he has a square bathroom with a floor area of 81 ft².

a) What is the measurement of one side of Ron's bathroom? (1 pt) _____

b) If Ron's decides to replace the baseboard how much will he need? (1 pt) _____

4. Find the circumference of the following circles. (3 pts)

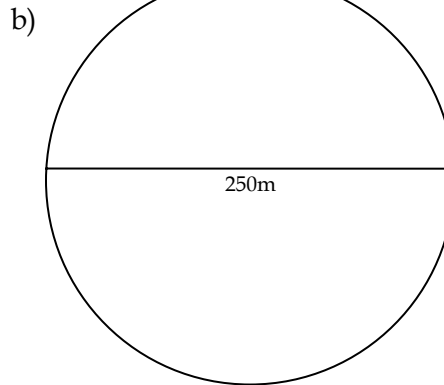
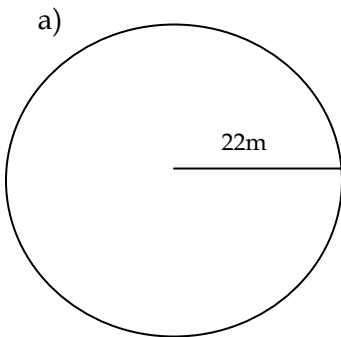


a) _____

b) _____

5. Nicole has a problem; she has a circular fountain and she knows that the total distance around the fountain is 628 ft but she needs to know how far it is across the fountain. Find the length that Lena needs. (2 pts)

6. Find the area of the circles below. (3 pts)



a) _____

b) _____

7. Molly is trying to cover a circular table top. She knows that the total distance across the top of the table is 98 cm. How much tile will Molly need to cover the table top? (2 pts)

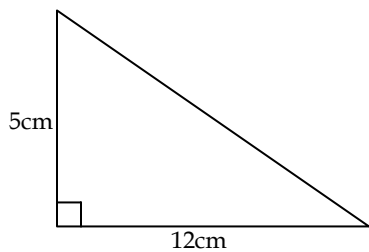
8. Solve the equations for the unknown variable. Show all work. (2 pts)

a) $x + 5 = 50$

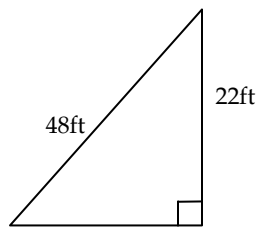
b) $z - 10 = -7$

9. Find the missing side of the following right triangles. Show all work. (3 pts)

a)



b)



10. Andrew and Katherine are on a treasure hunt. They both start at the same point. Andrew walks south for 2 km and Katherine walks east for 4 km. How far apart are they when they stop walking? Draw a diagram to help solve the problem. (3 pts)

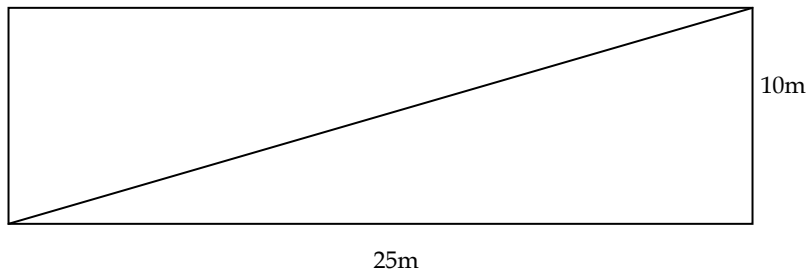
11. Can the measurements listed below form the sides of a right triangle? Show work to justify your answer. (2 pts)

10m

12m

15m

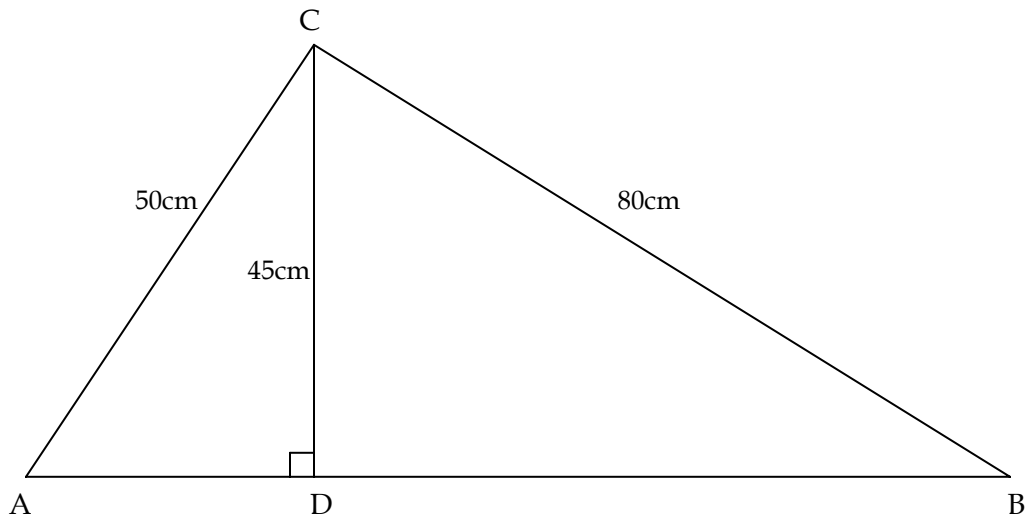
12. Ria has a large rectangular yard which is cut in half by a diagonal fence shown below. (3 pts)



a) Find the measurement of the diagonal fence? Show your work.

b) How much grass is needed to cover one of the triangular yards?

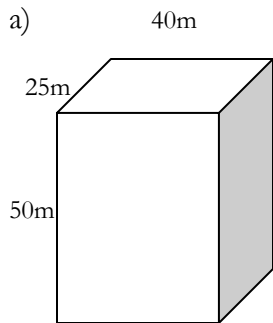
13. Find the length of side AB. (4 pts)



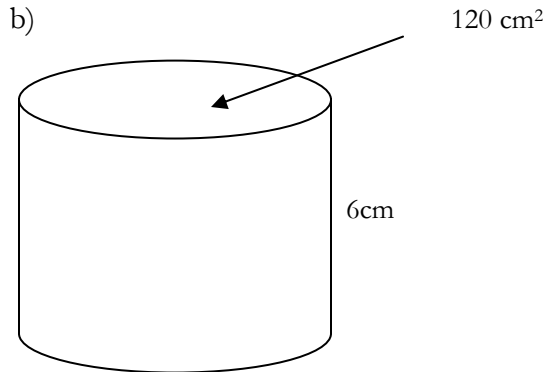
- Show all work on these sheets. No attached pages
- Total Points: 30

1. If 1m is represented by 1 cm, then 15m would be represented by _____. (1 pt)
2. If 5 km is represented by 2cm, then 50 km would be represented by _____. (1 pt)
3. Each rectangular desk in the classroom is approximately 60 inches long and 45 inches wide. Determine an appropriate scale and create a scaled / labeled drawing in the space below. (2 pts)

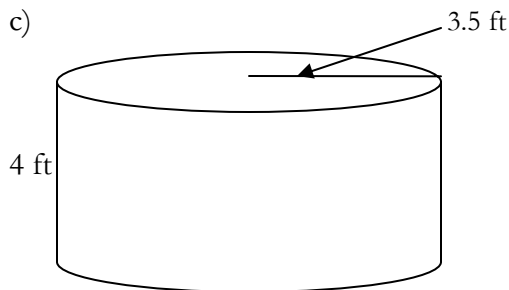
4. Find the volume of the following prisms. (8 pts)



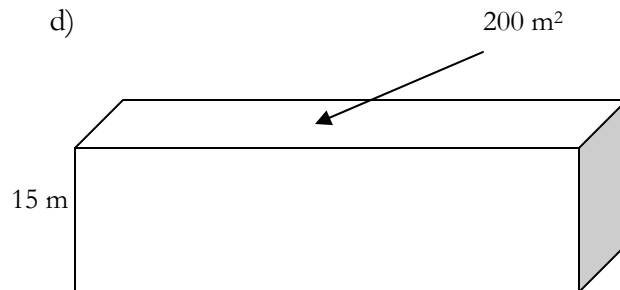
a) _____



b) _____



c) _____



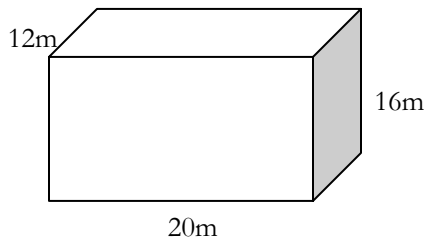
d) _____

5. A dump truck bed holds 4050 m^3 of gravel. The bottom of the bed is 5.2 m wide and 10 m long. How high is the bed of the dump truck? Show all work. (3 pts)

6. A cylindrical silo holds $75\,000 \text{ ft}^3$ of corn. The silo is 100 ft high. How much land does the circular base of the silo cover? Show all work. (3 pts)

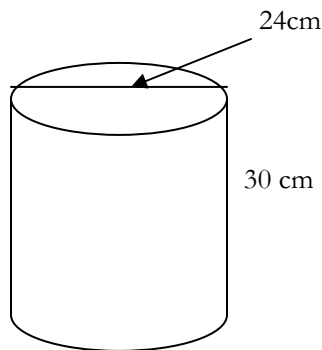
7. Find the surface area of the following prisms. (6 pts)

a)



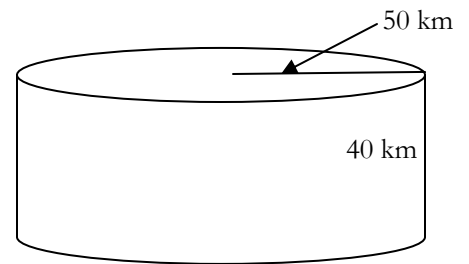
a) _____

b)



b) _____

c)



c) _____

8. Andrea is giving her friend a can of nuts as a present. The can is 30 cm high and has a radius of 15 cm . She has a piece of wrapping paper 200 cm^2 . Is the paper big enough to wrap the can? Show work to support your answer. (3 pts)

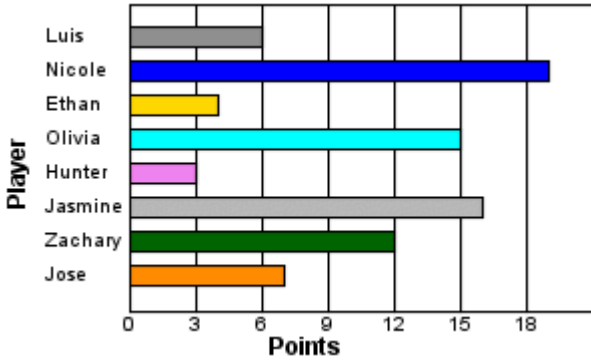
9. A children's toy box has a surface area of 2600 in^2 . The length of the toy box is 30 in and the width is 12 in . Find the height of the toy box? Show all work. (3 pts)

Math 11 Essentials Possible Interview Questions

1. Build one of the following rectangular prisms using the cube-a-links
 $2 \times 2 \times 2$ $3 \times 2 \times 1$ $4 \times 2 \times 2$ $3 \times 3 \times 2$
2. Looking at the following rectangular prism, if you had to build it, how many cube-a-links would you use?
3. Explain the difference between perimeter and area.
4. Explain the difference between area and surface area.
5. Questions relating to graphs #1 and #2.
6. You have to determine whether a corner is 90° , how could you do this and which formula or theorem could you use?
7. Explain why the formula for the surface area of a cylinder is what it is.
8. Referring to 2 of the 3 area figures explain how you would find the shaded or unshaded region.

Math 11 Essentials Final Assessment Review

1.



A. Which player(s) scored more than 6 points?

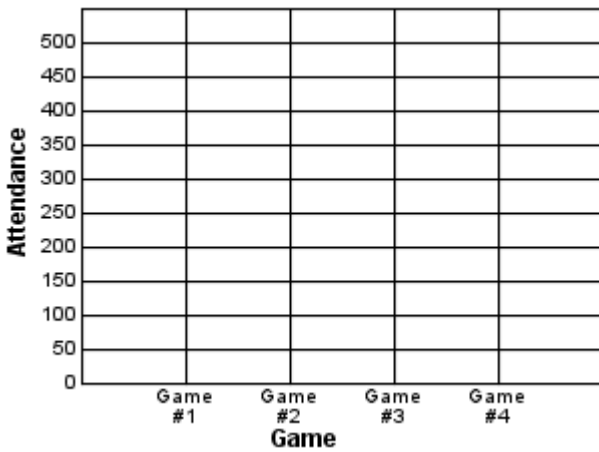
B. Who scored the most points?

C. What are the total points for all eight players?

2.

Make a line graph using the data in the table.

Attendance



Attendance

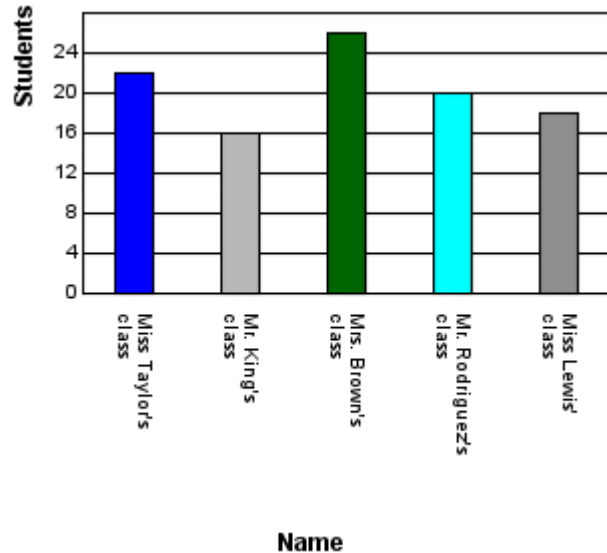
Game	Attendance
Game #1	300
Game #2	500
Game #3	150
Game #4	475

A. Which games(s) did not have an attendance of at least 500 people?

B. How many more people came to game #4 than to game #3?

C. Which games(s) had an attendance of more than 300 people?

3.



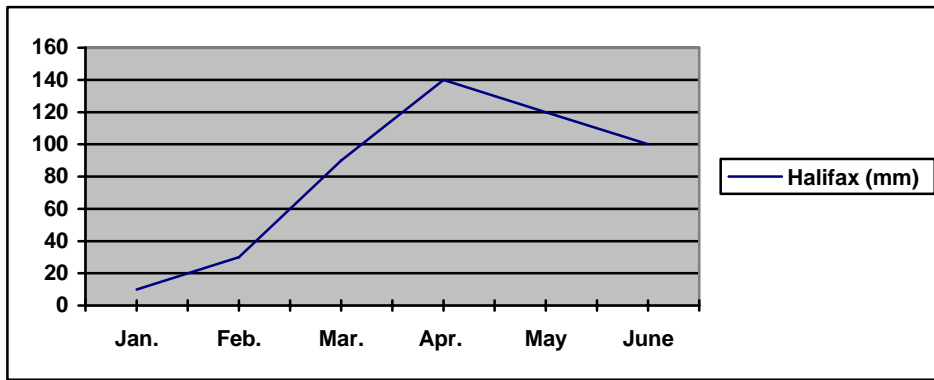
a. How many more students are in Mrs. Brown's class than are in Miss Taylor's class?

b. Which class has the fewest students?

c. If half of the students in Mrs. Brown's class are girls, how many girls are in Mrs. Brown's class?

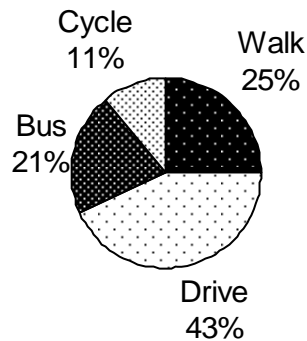
4.

The graph below shows how much rain fell in Halifax in the year of 2005.



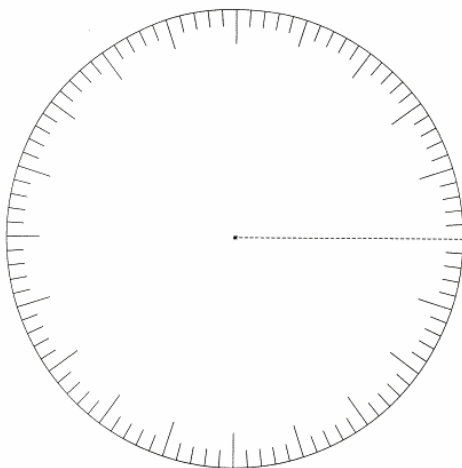
- A) How much rain fell in January and February combined?
- B) Between which two months was there the greatest increase in rain fall?
- C) Describe what happened to the rainfall between May and June.

5. During a survey 200 people were asked how they got to work each day. There were four possible categories to choose from: walking, driving, taking a bus or cycling. There results are provided in the pie graph below.

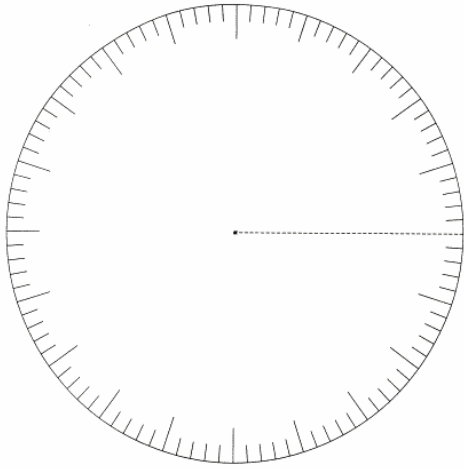


- A) How much higher is the percentage of people who took the bus than the people who cycled?
- B) What percentage of people either drove or took the bus?
- C) How many people cycled to work?
- D) How many more people drove to work than walked?

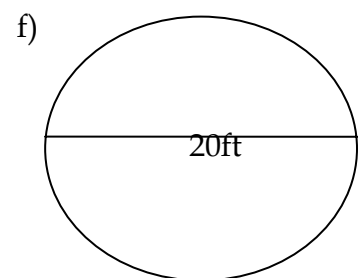
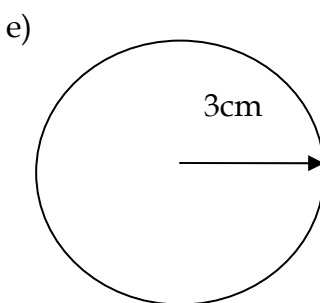
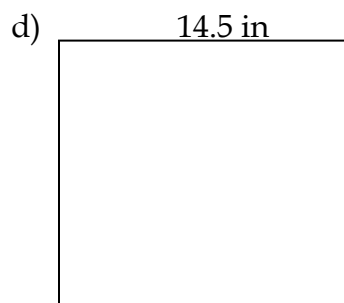
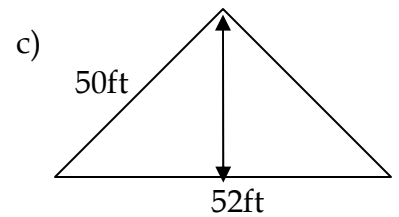
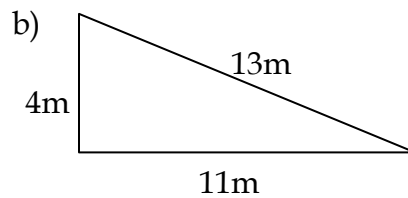
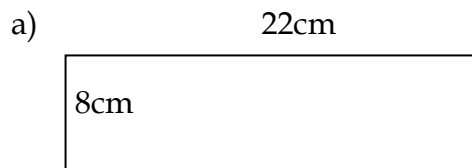
6. In a survey, 25% of people said they prefer Tylenol, 50% preferred Advil, and the rest of the people preferred "other". Construct an accurate pie graph to display the data.



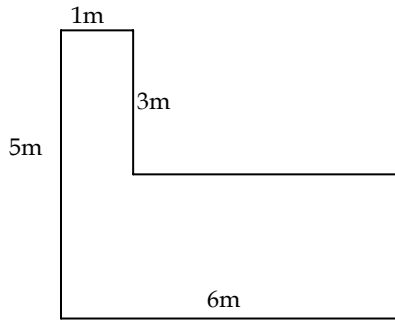
7. 200 people were surveyed about junk food. 160 people said yes, they ate junk food regularly. 10 people said they never ate junk food. The remainder, 30 people, said "once in a while". Calculate the sample proportions for each answer and construct a pie graph.



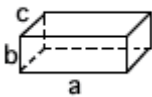
8. Marlon wants to replace the baseboard in his rectangular living room which measures 14 feet by 18 feet.
- How much baseboard will Marlon need?
 - If baseboard costs \$0.75/foot, how much will replacing it cost Marlon?
 - If the baseboard sells in pieces 8 feet long, how many pieces will Marlon need?
9. If the perimeter of a regular pentagon is 20 cm, what is the length of one of its sides?
10. Find the distance (perimeter or circumference) around the outside of each shape.



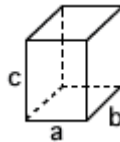
11. Sunna decides to build an odd shaped bathroom shown below.



- a) Find the area of Sunna's bathroom.
b) It costs \$2 for each 1m^2 tile to cover the floor. How much will it cost Sunna to tile her new bathroom?
12. Bob has a problem. He knows that the length of his rectangular garden is 10m and the area is 250m^2 but he doesn't know the width. Find the width of Bob's garden.
13. Bob also has a square garden with an area of 169m^2 but he doesn't know the length of one side. Find the side length.
14. Solve the equations below to find the unknown.
- a) $r + 5 = 14$ b) $d - 18 = 80$ c) $14 + k = 30$ d) $s - 2 = 1$
15. Find the surface area of the following rectangular prism.
- a) b)

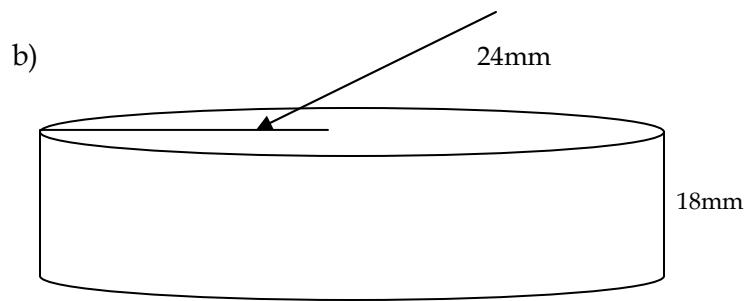
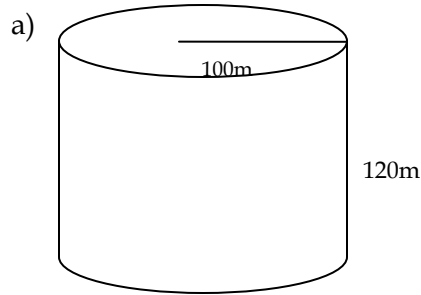


$a = 64.3\text{ in}$
 $b = 34\text{ in}$
 $c = 35\text{ in}$



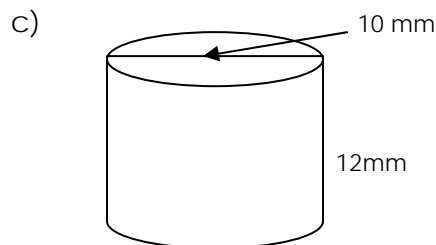
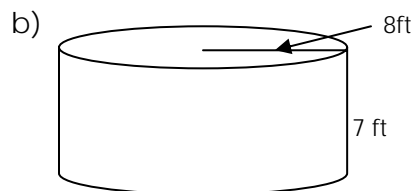
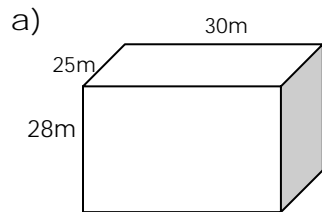
$a = 11\text{ km}$
 $b = 12\text{ km}$
 $c = 33\text{ km}$

16. Find the surface area of the following cylinders.



17. A rectangular prism has a surface area of 300 m^2 . It has a height of 6m and a length of 8m. What is the width of the rectangular prism?

18. Find the volume of the prism below.



19. A can of stock has a base with are area of 92 cm^2 and a height of 12 cm. How much stock does the can hold?

20. A rectangular prism has a volume of 600 mm^3 and a height of 12 mm. What is the area of the base of the prism?

21. A cylindrical water glass has a radius of 8 cm and volume of 600 cm^3 . What is the height of the glass?

* This exam review does not include scale drawings and drawing 3-D rectangular prisms.

Final Assessment Review Solutions

1. a) Jose, Zachary, Jasmine, Oliver, Nicole b) Nicole c) 82
2. a) Game #1, 3, 4 b) 175 c) Games # 2, 4
3. a) 4 b) Mr. King's c) 13
4. a) 20mm b) Mar. and Apr. c) Decrease from the previous months.
5. a) 10% b) 64% c) 11% of 200 = 22
d) # who drove = 86, # who walked = 50, $86 - 50 = 36$
6. Pie Chart
7. Regularly $160/200 = 80\%$, Never $10/200 = 5\%$, Once in a While $30/200 = 15\%$
8. a) 64 feet b) \$48 c) 8 pieces
9. $20 \div 5 = 4\text{cm}$
10. a) 60cm b) 28m c) 152ft d) 58in e) 18.84cm f) 62.8ft
11. a) $(6)(2) + (1)(3) = 12 + 3 = 15\text{m}^2$ b) \$30
12. $250 \div 10 = 25\text{m}$
13. $\sqrt{169} = 13\text{m}$
14. a) $r = 9$ b) $d = 98$ c) $k = 16$ d) $s = 3$
15. a) 11253.4 in^2 b) 1782 km^2
16. a) $62800 + 75360 = 138160\text{ m}^2$ b) $3617.28 + 2712.96 = 6330.24\text{ mm}^2$
17. $300 = 2(8)(w) + (2)(6)(w) + (2)(6)(8)$, $300 = 16w + 12w + 96$, $204 = 28w$, $w = 7.29\text{m}$
18. a) 21000 m^3 b) 1406.72 ft^3 c) 942 mm^3
19. $(92)(12) = 1104\text{ cm}^3$
20. $600 \div 12 = 50\text{mm}^2$
21. $600 = (3.14)(8)(8)(h)$, $600 = (200.96)(h)$ $h = 600 \div 200.96 = 2.99$

Percent of a Number

Find the percent of each number. Round your answer to the nearest tenth.

1. 35% of 190	2. 30% of 30	3. 40% of 20
4. 95% of 40	5. 60% of 130	6. 90% of 80
7. 5% of 10	8. 15% of 150	9. 50% of 120
10. 75% of 160	11. 45% of 100	12. 70% of 180
13. 215% of 140	14. 135% of 60	15. 170% of 200
16. 120% of 70	17. 155% of 170	18. 205% of 90
19. 165% of 50	20. 110% of 110	21. 20% of 200
22. 65% of 50	23. 210% of 30	24. 115% of 90
25. 125% of 40	26. 85% of 80	27. 185% of 190
28. 190% of 70	29. 200% of 100	30. 25% of 150