

MATH 10F CORE EXAM REVIEW**Part 1 – Exponents****A. Calculate to the nearest tenth.**

1. 4^2 16.0	2. $\sqrt{49}$ 7.0
3. $\sqrt{0.25}$ 0.5	4. $3\sqrt{81}$ $= 27$ 3.9
5. $3^2 + 5^2 + 7$ $9+25+7 = 41$	6. $\frac{5\sqrt{16}-8}{3}$ $\frac{5 \cdot 4 - 8}{3} = \frac{20-8}{3} = 4$
7. $4\sqrt{23} - 6\sqrt{7}$ 3.3	8. $(\sqrt{19})(\sqrt{5})$ 9.7

B. Write both square roots of each number.

1. 64 +8, -8	2. 121 +11, -11
3. 25 +5, -5	4. 81 +9, -9

C. Show the steps to estimating square roots.

1. $\sqrt{56}$ $\sqrt{49} & \sqrt{64} = 7.5$	2. $\sqrt{29}$ $\sqrt{25} & \sqrt{36} = 5.4$
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D. Express in expanded form.

1. 3^6 $3 \times 3 \times 3 \times 3 \times 3 \times 3$	2. $(-2)^4$ $(-2)(-2)(-2)(-2)$
3. $\left(\frac{2}{5}\right)^3$ $\left(\frac{2}{5}\right)\left(\frac{2}{5}\right)\left(\frac{2}{5}\right)$ or $\frac{2 \times 2 \times 2}{5 \times 5 \times 5}$	4. 4^{-2} $\frac{1}{4^2} = \frac{1}{4 \cdot 4}$

Part 1 – Exponents (cont)

E. Express in exponential form with positive exponents, then evaluate.

1. $2^3 \times 2^5$ $2^8 = 256$	2. $3^7 \div 3^5$ $3^2 = 9$
3. $(4^7)^5$ $= 4^{35}$ $= 1.18 \times 10^{21}$	4. $(8^{-2})^3$ $8^{-6} = \frac{1}{8^6} = \frac{1}{262144}$
5. $7^5 \div 7^{-3}$ $7^8 = 5764801$	6. $6^{-2} \times 6^3 \times 6^4$ $6^5 = 7776$

F. Evaluate.

1. 5^0 $= 1$	2. $(-15892.35)^0$ $= 1$
3. $5(2)^3$ $(5)(8) = 40$	4. 3^{-2} $\frac{1}{3^2} = \frac{1}{9}$
5. $4^{-3} \times 4^0 \times 4^5$ $4^2 = 16$	6. $(5^2)^3 \div 5^4$ $5^6 \div 5^4 = 5^2 = 25$
7. 2^{-1} $\frac{1}{2^1} = \frac{1}{2}$	8. $(2^3)^{-2}$ $2^{-6} = \frac{1}{2^6} = \frac{1}{64}$
9. $\frac{2}{3^{-2}}$ $2(3^2) = (2)(9) = 18$	10. $\left(\frac{2}{3}\right)^{-1}$ $\frac{2^{-1}}{3^{-1}} = \frac{3^1}{2^1} = \frac{3}{2}$

G. Simplify.

1. $(2x^3y^3)^3$ $2^3 x^6 y^9$	2. $(-5a^4b^{-3}c)^2$ $(-5)^2 a^8 b^{-6} c^2 = \frac{25a^8c^2}{b^6}$
3. $(2x^2y^3)(x^4y^3)$ $2x^6 y^6$	4. $(-6a^2b^2)(3a^{-4}b^3)$ $-18a^{-2}b^5 = -\frac{18b^5}{a^2}$
5. $\left(\frac{a}{7}\right)^3$ $\frac{a^3}{7^3} = \frac{a^3}{343}$	6. $\left(\frac{-4b}{3c}\right)^2$ $\frac{(-4b)^2}{(3c)^2}$
7. $\frac{21x^7y^9}{14x^4y^5}$ $\frac{3x^3y^4}{2}$	8. $\frac{24a^5b^3}{36a^7b^5}$ $\frac{2}{3a^2b^2}$

Part 1 – Exponents (cont)

H. Put each group of numbers in descending order (greatest to least).

1. -1.2 $\frac{4}{5}$ $\frac{7}{8}$ -0.5 $-\frac{7}{8}$

$$\frac{7}{8} \quad \frac{4}{5} \quad -0.5 \quad -\frac{7}{8} \quad -1.2$$

2. 0.3 -0.6 $-\frac{3}{4}$ $1\frac{1}{5}$ -1

$$1\frac{1}{5} \quad 0.3 \quad -0.6 \quad -\frac{3}{4} \quad -1$$

I. Solve each of the following using the correct order of operations.

1. $4^2 - 8 \div 2 + (-3)^2$	2. $8(5+2)^2 - 12 \div 2^2$
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$$16 - 4 + 9 = 21$$

$$8(7)^2 - 12 \div 4$$

$$= 8(49) - 3 = 389$$

J. Express each of the following in scientific notation.

1. 9 600 000	2. 0.000 000 456
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$$9.6 \times 10^6$$

$$4.56 \times 10^{-7}$$

3. 1 300	4. -0.00079
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$$1.3 \times 10^3$$

$$-7.9 \times 10^{-4}$$

K. Solve the following. Write your answer in scientific notation.

1. $(4.2 \times 10^{-5})(3.2 \times 10^{-7})$	2. $(5.5 \times 10^9) \div (1.1 \times 10^3)$
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$$(4.2)(3.2) \times 10^{-12}$$

$$13.44 \times 10^{-12}$$

$$5 \times 10^6$$

$$1.344 \times 10^{-11}$$

Part 2 - Equations

A. Evaluate $5x + 3y$ for the following values of variables.

1.
$$\begin{array}{l} x=1 \\ y=3 \end{array} \quad 5(1) + 3(3) \\ = 14$$

2.
$$\begin{array}{l} x=8 \\ y=9 \end{array} \quad 5(8) + 3(9) \\ = 67$$

3.
$$\begin{array}{l} x=-5 \\ y=6 \end{array} \quad 5(-5) + 3(6) \\ = -7$$

4.
$$\begin{array}{l} x=-2 \\ y=-7 \end{array} \quad 5(-2) + 3(-7) \\ = -31$$

B. Evaluate each expression for $a=2$, $b=-5$, $c=3.5$

1.
$$a+b+c \\ (2) + (-5) + (3.5) = 0.5$$

2.
$$a-b+c \\ (2) - (-5) + (3.5) = 10.5$$

3.
$$2a+3b \\ 2(2) + 3(-5) = -11$$

4.
$$ab \\ 2(-5) = -10$$

5.
$$5a-2b+2c \\ 5(2) - 2(-5) + 2(3.5) \\ = 27$$

6.
$$-3b+4c+5 \\ -3(-5) + 4(3.5) + 5 \\ = 34$$

C. Simplify the following expressions.

1.
$$5a+2b+6a+2 \\ 11a + 2b + 2$$

2.
$$3x+2y-2x+7y \\ x + 9y$$

3.
$$3x^2 + 5x - 7x + 2x^2$$

$$5x^2 - 2x$$

4.
$$-5m^2 - 3m - 7m - 4m^2 + 6$$

$$-9m^2 - 10m + 6$$

5.
$$-5j^2 - 3k - 4k^2 + 6k \\ -5j^2 - 4k^2 + 3k$$

6.
$$-3p^2 - 3p + 6p - 4p^2 \\ -7p^2 + 3p$$

7.
$$-2(2a-b) + 3(4a-6b) \\ -4a + 2b + 12a - 18b \\ = 8a - 16b$$

8.
$$(2a-3) - (6a+3b-5) \\ 2a - 3 - 6a - 3b + 5 \\ = -4a - 3b + 2$$

Part 2 - Equations

D. Solve for the variable.

1. $\frac{3x}{3} = \frac{12}{3}$ $x = 4$	2. $\frac{4n}{4} = \frac{48}{4}$ $n = 12$
3. $\frac{2}{+3} = \frac{-3+d}{+3}$ $d = 5$	4. $\frac{-24}{6} = \frac{6x}{6}$ $x = -4$
5. $\left(\frac{x}{2}\right)^2 = (7)^2$ $x = 7(2)$ $x = 14$	6. $\frac{3kb}{3} = -4^3$ $b = -12$
7. $\frac{b}{3} + 4 = -2^{-4}$ $\frac{b}{3} = (-6)^3$ $b = -18$	8. $\frac{-2}{2} - \frac{k}{4} = -1^{-2}$ $\frac{-k}{4} = -\frac{(-4)}{3}$ $k = +12$
9. $7x + 11 = 3x + 3$ $4x = -8$ $x = -2$	10. $5(3x - 1) = 8x + 9$ $15x - 5 = 8x + 9$ $7x = 14$ $x = 2$
11. $3(j + 7) + 4(j - 4) = -30$ $3j + 21 + 4j - 16 = -30$ $7j = -35$ $j = -5$	12. $-67 - 6(3k - 4) = -(1 - 3k)$ $-67 - 18k + 24 = -1 + 3k$ $-21k = 42$ $k = -2$
13. $\left(\frac{2x}{3}\right)^3 = (-6)^3$ $2x = -18$ $x = -9$	14. $\frac{8}{10} = \frac{n}{5}$ $\frac{5 \cdot 8}{10} = n$ $n = 4$
15. $\left(\frac{y}{2} + 1 = \frac{y}{3}\right) \frac{6}{1}$ $\frac{6y}{2} + 6 = \frac{6y}{3}$ $y = -6$	16. $\left(\frac{a}{4} = \frac{a}{5} + 1\right) \frac{20}{1}$ $5a = 4a + 20$ $a = 20$
17. $\left(\frac{n}{2} + 2 = \frac{n}{5} + 4\right) \frac{10}{1}$ $\frac{10n}{2} + 20 = \frac{10n}{5} + 40$ $5n + 20 = 2n + 40$	18. $\left(\frac{(x+1)}{3} = \frac{(x-1)}{5}\right) \frac{15}{1}$ $5(x+1) = 3(x-1)$ $5x + 5 = 3x - 3$

$$5n + 20 = 2n + 40$$

$$3n = 20$$

$$n = \frac{20}{3}$$

$$2x = -8$$

$$x = -4$$

Part 3 – Polynomials

A. Arrange the terms in each polynomial in descending powers of 'x'.

1. $4x^2 - 3x^3 + 2x^5 + x - 2$

$$2x^5 - 3x^3 + 4x^2 + x - 2$$

2. $7x^2 - 5xy - 6x^3 + 12$

$$-6x^3 + 7x^2 - 5xy + 12$$

3. $4x^2yz^2 + 6xy^4z - 2x^3y^4z^2 - 4$

$$-2x^3y^4z^2 + 4x^2y^2z^2 + 6xy^4z - 4$$

C. Find the additive inverse of the following.

1. $2x + 5$

$$-2x - 5$$

2. $-6m^2 + 7m - 8$

$$+6m^2 - 7m + 8$$

3. $6y + 3y^4 - 4y^2 + 3$

$$-3y^4 + 4y^2 - 6y - 3$$

D. Simplify the following by performing the indicated operation.

Add:

1.
$$\begin{array}{r} x^2 + 3x + 1 \\ + 4x^2 + 2x + 6 \\ \hline 5x^2 + 5x + 7 \end{array}$$

2.
$$(6z^3 - 7z + 4z^2 + 2) + (-3 - 5z^2 + 6z)$$

$$6z^3 - z^2 - z - 1$$

3.
$$(x^2 + 4x + 3) + (x^2 - 5) + (x^2 - x - 2)$$

$$3x^2 + 3x - 4$$

4.
$$(-3n^4 - 3n - 9) + (-n^4 + 6n^2 + 7n - 3)$$

$$-4n^4 + 6n^2 + 4n - 12$$

Subtract the following.

5.
$$\begin{array}{r} 2x^2 + 3x - 4 \\ - (\underline{-2x + 7}) \\ \hline 2x^2 + 5x - 11 \end{array}$$

6.
$$\begin{array}{r} (-y^2 + 2y - 7) - (-6y^2 + 4y - 5) \\ -y^2 + 2y - 7 + 6y^2 - 4y + 5 \\ \hline 5y^2 - 2y - 2 \end{array}$$

7.
$$\begin{array}{r} 14x^2 - 25x + 4 \\ - (\underline{12x + 5 + 22x^2}) \\ \hline -8x^2 - 37x \end{array}$$

8.
$$\begin{array}{r} x^2 - 5x + 6 \\ - (\underline{3x^2 + 4x - 9}) \\ \hline -2x^2 - 9x + 15 \end{array}$$

9.
$$\begin{array}{r} (4a^2 - 8a + 3) - (-3a^2 + 4a - 5) \\ 4a^2 - 8a + 3 + 3a^2 - 4a + 5 \\ \hline 7a^2 - 12a + 8 \end{array}$$

10.
$$\begin{array}{r} (4 - 7c + 3c^2) - (-3c + 2c^2 - 5) \\ 4 - 7c + 3c^2 + 3c - 2c^2 + 5 \\ \hline c^2 - 4c + 9 \end{array}$$

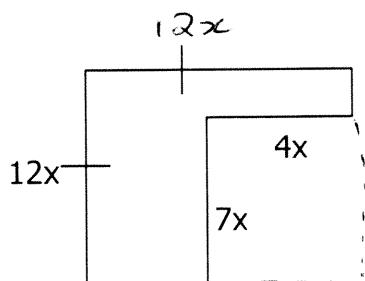
E. Multiply the following.

1. $3r \times 4t$ $12rt$	2. $2a \times 5b^2$ $10ab^2$	3. $(-3xy)(-4xyz)$ $12x^2y^2z$
4. $-5x^2yz(7y^2z)$ $-35x^2y^3z^2$	5. $(3ab)(-7c)$ $-21abc$	6. $-2a^2c \times 3b^2c$ $-6a^2b^2c^2$
7. $-5a^4b^3(-2a^2b^5)$ $10a^6b^8$	8. $(-3xy^2z)(-x^2yz)(4xyz^2)$ $12x^4y^4z^4$	9. $(-3xy)(-3xy)(-4xyz)$ $-36x^3y^3z$

F. Divide the following.

1. $\frac{-14a}{7}$ $-2a$	2. $\frac{-32b}{-16b}$ 2	3. $\frac{20mn}{60m}$ $\frac{1 \cdot n}{3} = \frac{n}{3}$	4. $\frac{-20klm}{4kl}$ $-5m$
5. $\frac{18xy^3z}{-8x^2y^4z^3}$ $\frac{9}{-4xy^2z^2}$	6. $\frac{3x^4y}{33x^7y^5}$ $\frac{1}{11x^3y^4}$	7. $\frac{-94m^{12}n^4}{72m^{-9}n^5}$ $\frac{-47m^{21}}{36n}$	8. $\frac{-75x^{-4}y^{-3}}{125x^{-3}y}$ $\frac{-3x^{-1}y^{-4}}{5}$

G. Find the area of the following figure:

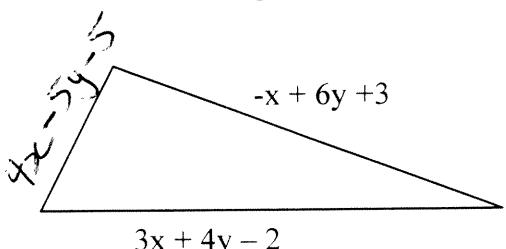


$$(12x)(12x) = 144x^2$$

$$(4x)(7x) = 28x^2$$

$$144x^2 - 28x^2 = \underline{\underline{+116x^2}} = 116x^2$$

H. Given the perimeter of the following is $P = 6x + 5y - 4$, find the missing length.



$$6x + 5y - 4 - (-x + 6y + 3) - (3x + 4y - 2)$$

$$6x + 5y - 4 + x - 6y - 3 - 3x - 4y + 2$$

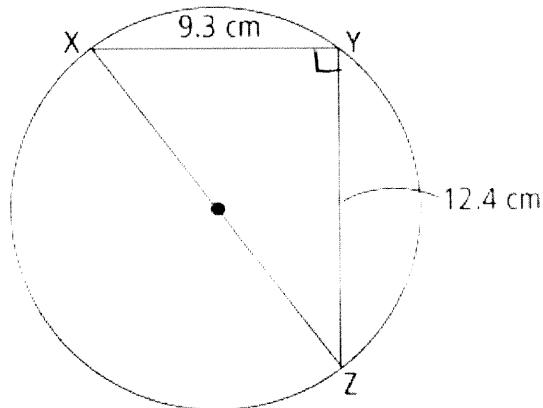
$$4x - 5y - 5$$

Part 4 – Circles

A. Define the following terms and be able to draw each.

- | | |
|------------------|---------------------------|
| a. arc | e. inscribed angle |
| b. radius | f. diameter |
| c. central angle | g. tangent |
| d. chord | h. perpendicular bisector |

1. Circle C has two chords drawn in it. Chord XY is 9.3 cm long and chord YZ is 12.4 cm long. When X and Z are joined by a straight line, the line runs through the centre of the circle. What is the diameter of the circle? Sketch and label the scenario. Justify your calculations.



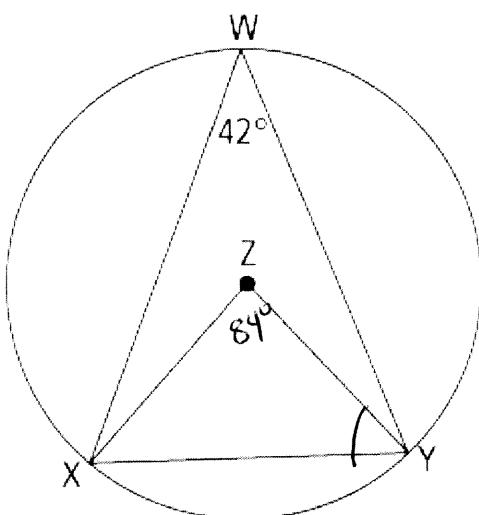
Angles inscribed in semicircle or subtended by diameter are 90°

$$c = \sqrt{a^2 + b^2}$$

$$c = \sqrt{9.3^2 + 12.4^2} = 15.5 \text{ cm}$$

2. Circle Z has chord XY, which is subtended by inscribed angle $\angle XWY$ and a central angle $\angle XZY$. The inscribed angle measures 42° .

- a) What is the measure of $\angle XZY$?
 b) What is the measure of $\angle XYZ$?



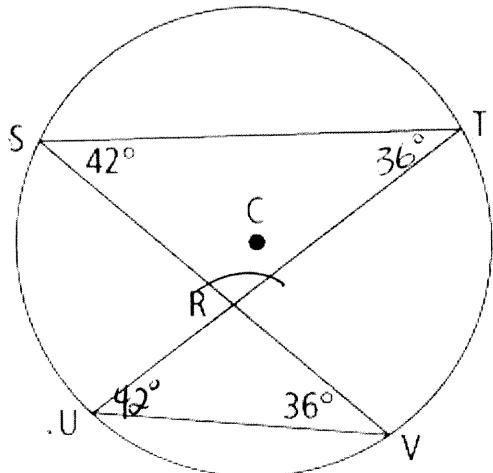
central angle $\angle XZY$ is twice inscribed $\angle XWY$ subtended by the same arc

$$\text{a) } \angle XZY = (42)2 = 84^\circ$$

b) $\triangle XYZ$ is isosceles \triangle

$$\frac{180 - 84}{2} = \frac{96}{2} = 48^\circ = \angle XYZ$$

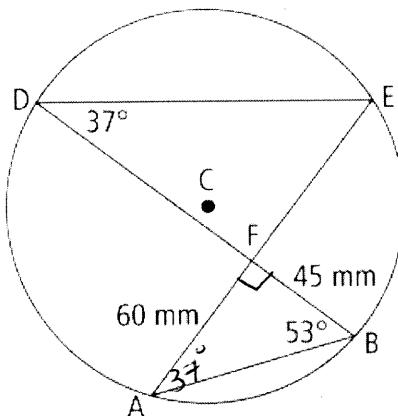
3. Circle C has two inscribed angles measuring 42° and 36° .
- What is the measure of $\angle STU$?
 - What is the measure of $\angle TUV$?
 - What is the measure of $\angle SRT$? Explain your thinking.



\angle 's subtended by the same arc are congruent

- $\angle STU = 36^\circ$
- $\angle TUV = 42^\circ$
- $\angle SRT = 180^\circ - 42^\circ - 36^\circ = 102^\circ$

4. Based on the diagram below, determine the length of AB.



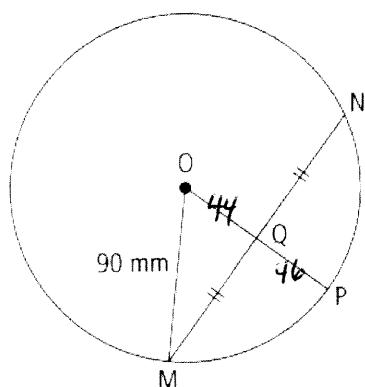
$$\angle EAB = 37^\circ \therefore \angle AFB = 90^\circ$$

so you can use $a^2 + b^2 = c^2$

$$\overline{AB} = \sqrt{60^2 + 45^2} = \sqrt{5625}$$

$$\overline{AB} = 75 \text{ mm}$$

5. The radius of a circle is 90 mm long and passes through the centre of a chord at a distance of 46 mm from the circumference of the circle. What is the length of the chord to the nearest hundredth? Show your thinking.



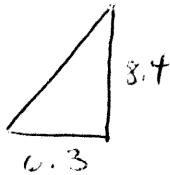
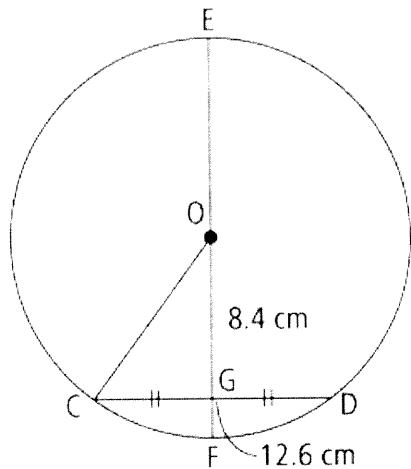
$$OQ = 90 \text{ mm} - 46 \text{ mm} = 44 \text{ mm}$$

find MQ then double it.

$$\overline{MQ} = \sqrt{90^2 - 44^2} = \sqrt{6164} = 78.51 \text{ mm}$$

$$MN = (78.51)2 = 157.02 \text{ mm}$$

6. Circle O has chord CD drawn on it. Chord CD is 12.6 cm long. The centre of the chord, G, is 8.4 cm from the centre of the circle. What is the radius of the circle?

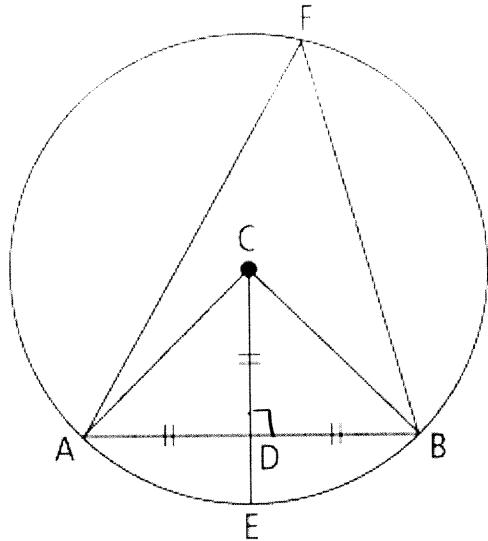


$$a^2 + b^2 = c^2$$

$$\overline{OQ} = \sqrt{8.4^2 + 6.3^2}$$

$$\overline{OQ} = 10.5 \text{ cm} = \text{radius.}$$

7. In the figure shown, what is the measure of $\angle AFB$? Justify your response.



$\overline{CE} \perp \text{bisector of } \overline{AB} \text{ so meet @ } 90^\circ$

$\triangle CBD$ isosceles

$\angle CDB = 90^\circ$ so $\angle DCB = \angle DBC = 45^\circ$

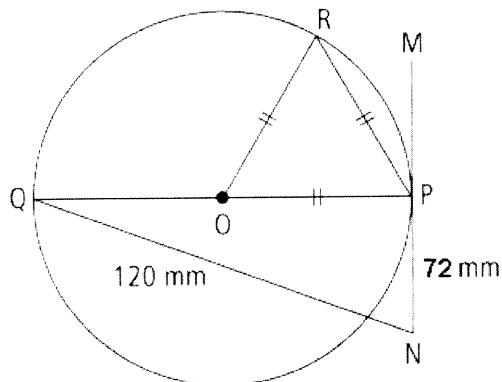
$\angle ACD = 45^\circ$ so $\angle ACB = 90^\circ$

inscribed $\angle AFB = \frac{1}{2}$ central $\angle ACB$.

$\angle AFB = 45^\circ$

8. Determine the length of chord PR in the figure below. Show your work, to the nearest whole millimetre.

find QP then divide by 2.



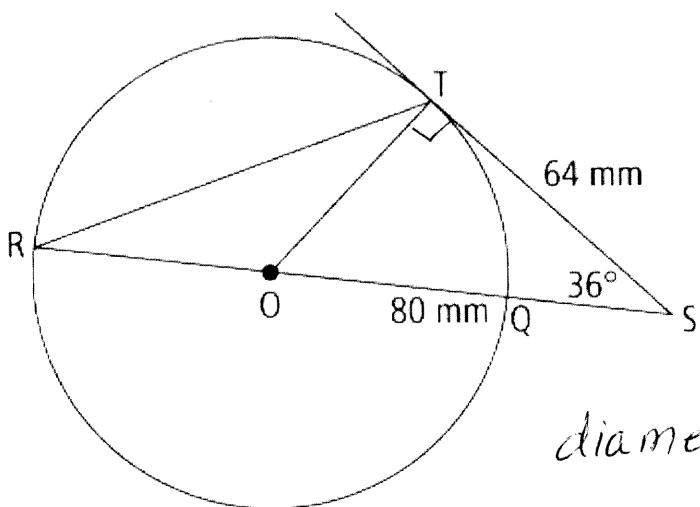
$$\sqrt{120^2 - 72^2} = \sqrt{9216}$$

$$= 96 \text{ mm}$$

$$\overline{OP} = \frac{96}{2} = 48 \text{ mm}$$

$$\overline{PR} = 48 \text{ mm.}$$

9. Given the information in the diagram, what is the measure of the diameter of the circle?



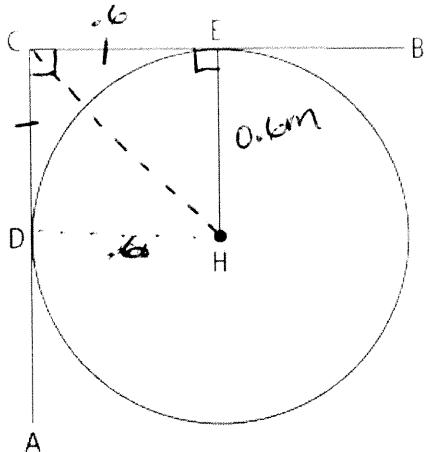
The tangent to a circle
is \perp to radius.

$$\begin{aligned} OT &= \sqrt{80^2 - 64^2} \\ &= \sqrt{2304} \end{aligned}$$

$$OT = 48 \text{ mm} = \text{radius}$$

$$\begin{aligned} \text{diameter} &= 2 \times \text{radius} \\ &= 96 \text{ mm}. \end{aligned}$$

10. A round dining table has a centre, H, and a diameter of 1.2 m. The table is pushed into a corner of a dining room, as shown. Determine the distance between the corner of the wall, C, and the edge of the table. Express your answer to the nearest millimetre.



Corner of wall is 90° .

Tangent to a circle
is 90° to radius.

Tangents to external
point are equal in length.

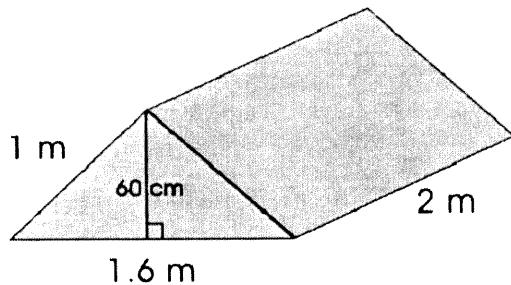
$$CH = \sqrt{0.6^2 + 0.6^2} = 0.8485$$

$$0.8485 - 0.6 = 0.2485 \text{ m}.$$

Dist from corner
of wall to edge of
table = 248.5 mm

Part 5 – Surface Area of Composite Shapes

- 1) Find the surface area of the tent, including the bottom.



$$\begin{aligned} \text{roof } & 2(1\text{m} \times 2\text{m}) = 2(2) = 4\text{m}^2 \\ \text{bottom } & 1.6\text{m} \times 2\text{m} = 3.2\text{m}^2 \\ \text{front \& back } & 2\left(\frac{1.6 \times 0.6}{2}\right) = 0.96\text{m}^2 \\ 4\text{m}^2 + 3.2\text{m}^2 + .96\text{m}^2 & = 8.16\text{m}^2 \end{aligned}$$

- 2) On the following A-Frame house, the front and back are identical. The windows measure 80 cm by 90 cm, and the door measures 95 cm by 205 cm. Calculate the surface area of:
- the windows and doors
 - the roof
 - the whole front and back face without windows and doors

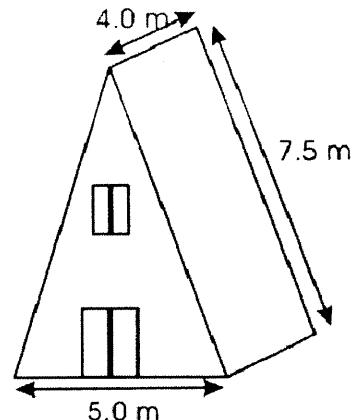
a) windows $4(0.8 \times 0.9) = 2.88\text{m}^2$
doors $4(0.95 \times 2.05) = 7.79\text{m}^2$

b) roof $2(4 \times 7.5) = 60\text{m}^2$

c) front & back face
 $2\left(\frac{5 \times 7.1}{2}\right) = 35.5\text{m}^2$

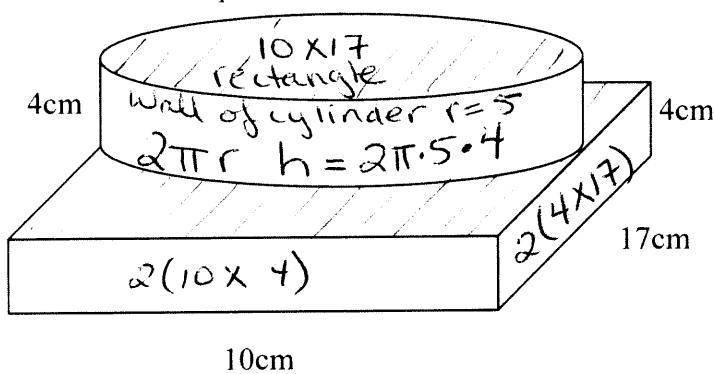
without windows & doors

$$35.5 - 2.88 - 7.79 = \underline{\underline{24.83\text{m}^2}}$$



Height of chalet = 7.1 m

- 3) Find the total exposed surface area of the cake that you would ice!



top view



$$10 \times 17 = 170$$

$$2\pi \cdot 5 \cdot 4 = 125.66$$

$$2 \times 10 \times 4 = 80$$

$$2 \times 4 \times 17 = 136$$

$$\underline{\underline{511.66\text{cm}^2}}$$

- 4) Find the surface area of the tent.

$$\text{roof} = 3 \cdot \pi = 9.42$$

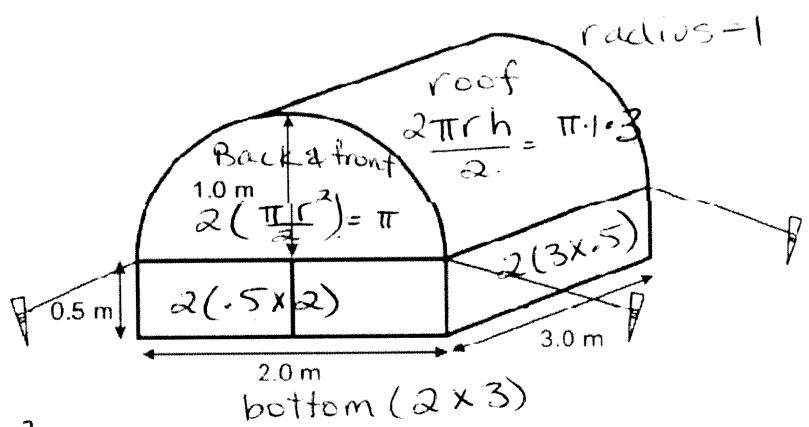
$$\text{back front } \Delta = \pi = 3 \cdot 14$$

$$2(5 \times 2) = 20$$

$$2(5 \times 3) = 30$$

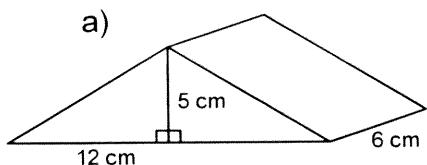
$$\text{bottom } 2 \times 3 = 6$$

$$\text{Total SA} = 23.56 \text{ m}^2$$



- 5) Two identical triangular prisms are joined in 3 different ways as shown. Determine the surface area of each object formed.

a)



length slant edge

$$\sqrt{5^2 + 12^2} = 13$$

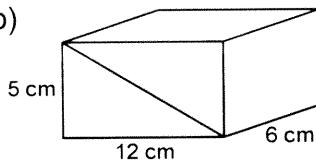
$$\text{Top} = 2 \times 13 \times 6 = 156 \text{ cm}^2$$

$$\text{bottom} = 2 \times 12 \times 6 = 144 \text{ cm}^2$$

$$\text{front & back} = 2 \times 5 \times 12 = 120 \text{ cm}^2$$

$$\text{Total} = 420 \text{ cm}^2$$

b)



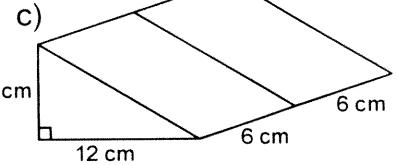
$$\text{front & back } 2(5 \times 12) = 120$$

$$\text{2 sides } 2(5 \times 6) = 60$$

$$\text{top & bottom } 2(6 \times 12) = 144$$

$$\text{Total} = 324 \text{ cm}^2$$

c)



$$\text{top } 2(13 \times 6) = 156$$

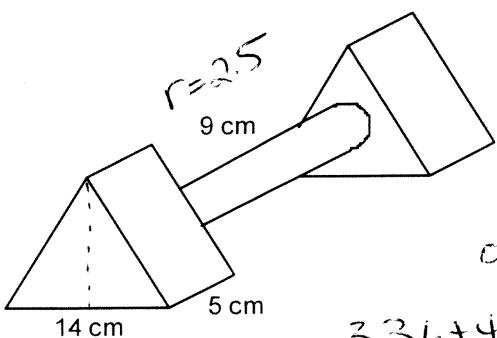
$$\text{bottom } 12(6+6) = 144$$

$$\text{front & back } (5 \times 12) = 60$$

$$\text{left } 2(5 \times 6) = 60$$

$$\text{Total} = 420 \text{ cm}^2$$

- 6) Two identical equilateral triangular prisms are joined by a cylinder as shown. The equilateral triangle has side length 14 cm and a perpendicular height of 12 cm. The rectangular sides have length 5 cm. The cylinder has diameter 5 cm and length 9 cm. Determine the surface area of the composite object, to the nearest square centimetre. Show your work.



$$\text{height of } \Delta = 12$$

$$4 \Delta's = 4 \left(\frac{14 \times 12}{2} \right) = 336$$

$$6 \square's = 6(14 \times 5) = 420$$

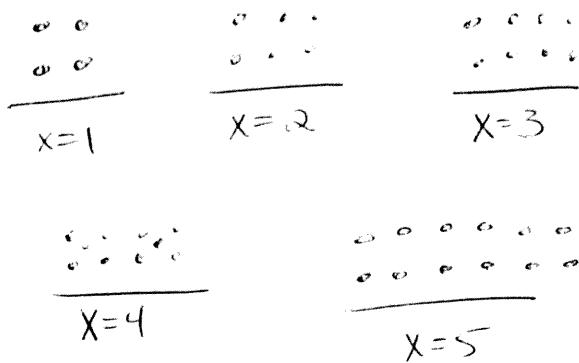
$$\text{cylinder side } 2\pi \left(\frac{5}{2} \right)(9) = 141$$

$$\text{overlap O's} = 2\pi (2.5)^2 = 39.27$$

$$336 + 420 + 141 - 39.27 = 857.73$$

$$= 858 \text{ cm}^2$$

Part 7 – Linear Relations



x	y
1	4
2	6
3	8
4	10
5	12

Arrows indicate a pattern of +2 for both x and y from row 1 to row 2, and from row 2 to row 3.

Diagram/Situation

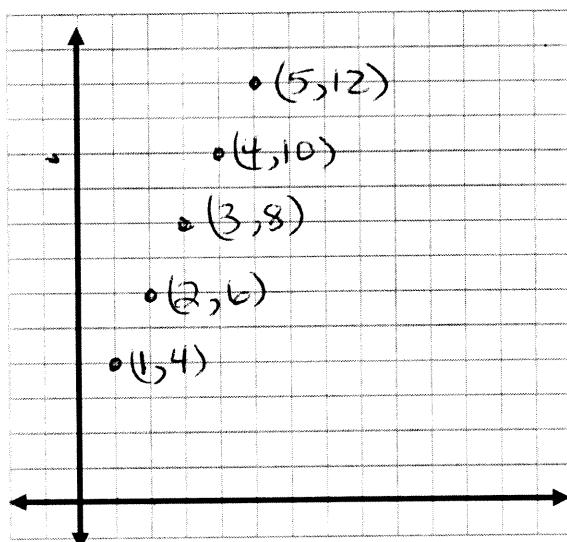
Table of Values

Graph

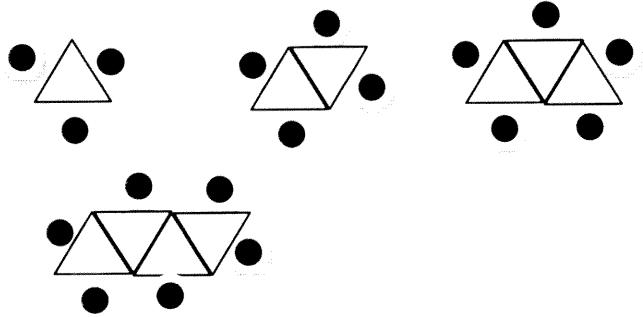
Equation

Label the points on the graph

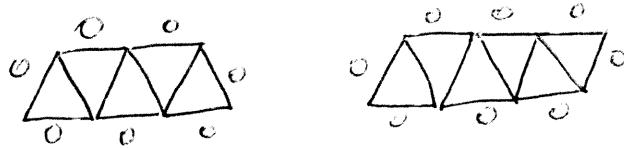
$$y = 2x + 2$$



C A banquet hall has small triangular tables that seat 1 person on each side. The tables can be pushed together to form longer tables.



Sketch the next 2 table arrangements.



Diagram/Situation

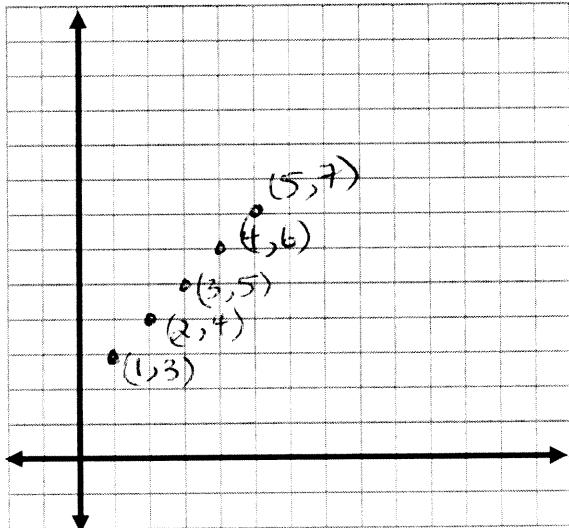
x	y
1	3
2	4
3	5
4	6
5	7

↓ +1
↓ +1

Table of Values

Graph

Label the points on the graph



$$y = x + 2$$

$$\begin{array}{c}
 \textcircled{1} \textcircled{2} \\
 \textcircled{3} \textcircled{4} \\
 \hline
 x = -1
 \end{array}
 \quad
 \begin{array}{c}
 \textcircled{5} \\
 \hline
 x = 0
 \end{array}
 \quad
 \begin{array}{c}
 \textcircled{6} \textcircled{7} \\
 \hline
 x = 1
 \end{array}$$

$$\begin{array}{c}
 \textcircled{8} \textcircled{9} \\
 \textcircled{10} \textcircled{11} \\
 \hline
 x = 2
 \end{array}
 \quad
 \begin{array}{c}
 \textcircled{12} \textcircled{13} \textcircled{14} \\
 \textcircled{15} \textcircled{16} \textcircled{17} \\
 \hline
 x = 3
 \end{array}$$

x	y
-1	-4
0	-1
1	2
2	5
3	8

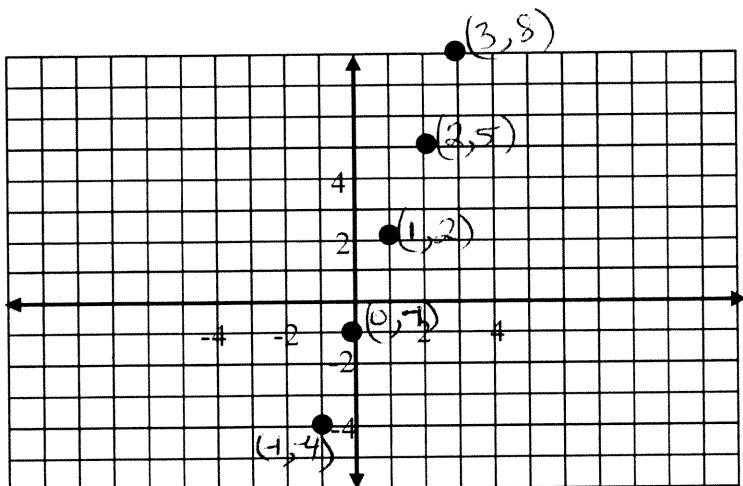
↗ +3
 ↗ +3
 ↗ +3

Diagram/Situation

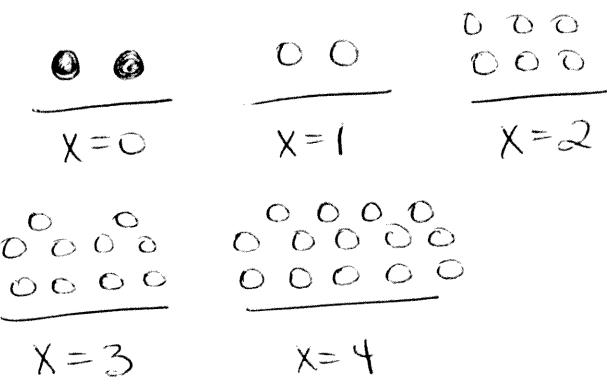
Table of Values

Graph

Equation



$$y = 3x - 1$$



x	y	
0	-2	$4(0) - 2$
1	2	$4(1) - 2$
2	6	$4(2) - 2$
3	10	$4(3) - 2$
4	14	$4(4) - 2$

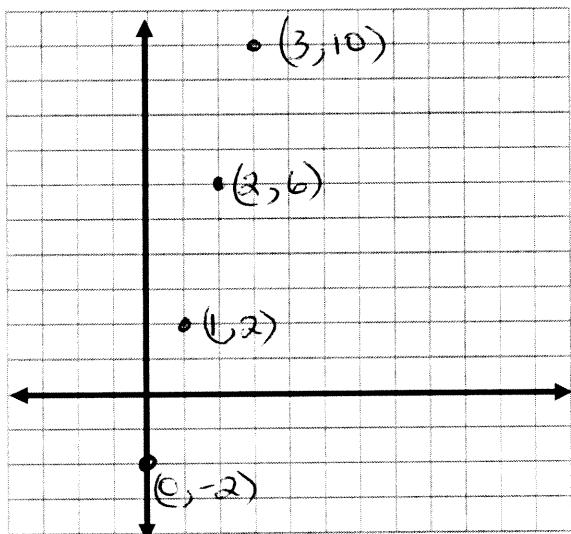
Diagram/Situation

Table of Values

Graph

Equation

Label the points on the graph



$$y = 4x - 2$$