THIS IS THE ANSWER-ONLY FOR
THIS IS AN EXAMPLE OF PERSONALIZED TESTS.

If needed, please use the following constants.

Please be advised that in this paper there are questions from 0.1 through 0.9. And any one of them may contain more than one sub-question, thus the total number of sub-questions here is around 14, of which 13 should be answered.

PAPER NUMBER 26

QUESTION 26.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 26.1.1 through 26.1.6).

Question 26.1.1 (6, 11, 26)

The possibility of non-smoking and under 30 years old customer is $(1-a)(1-b) = .156$.

Question 26.1.2 (6, 6, 21)

We will use the Newton's Second Law:

$$\mathbf{f} = m\mathbf{a}.$$

Since $\mathbf{f} = (70.0, 2.0, -2000.0)N$ and $m = 50.0kg$, bring them into the above equation, then we get

$$\begin{aligned} \mathbf{a} &= \frac{\mathbf{f}}{m} \\ &= \frac{(70.0, 2.0, -2000.0)N}{50.0kg} \\ &= (1.4000, 4.0000 \times 10^{-2}, -40.000)ms^{-2} \\ &= (18144., 518.40, -518400.)km/h^2. \end{aligned}$$

Question 26.1.3 (6, 9, 24)

By using Newton's Law of Universal Gravitation:

$$F = G\frac{(Sun's\ \ mass) \times (Planet's\ \ mass)}{(distance)^2},$$

where $G = 6.67 \times 10^{-11} Nm^2(kg)^{-2}$, the forces can be easily calculated as

The Planet	Mass (kg)	Distanace from Sun (m)	The Force (N)
Mercury	$6.00000000 \times 10^{24}$	$6.000000000 \times 10^{24}$	3.33×10^{-11}
Venus	2.00×10^{24}	4.00×10^{24}	2.50×10^{-11}
Earth	8.00×10^{24}	4.00×10^{24}	1.00×10^{-10}
Mars	7.00×10^{24}	9.00×10^{24}	1.73×10^{-11}
Jupiter	4.00×10^{24}	7.00×10^{24}	$1.63 \times 10^{-11}3$
Saturn	5.00×10^{24}	8.00×10^{24}	1.56×10^{-11}
Uranus	3.00×10^{24}	8.00×10^{24}	9.38×10^{-12}
Neptune	9.00×10^{24}	4.00×10^{24}	1.13×10^{-10}

Question 26.1.4 (6, 13, 28)

5;

6;

The operation is SUBTRACTION and the result is -1.0000.

Question 26.1.5 (6, 12, 27)

Customer	Possibility
smoking and equal-or-above 30 years old	.102
smoking and under 30 years old	.238
non-smoking and equal-or-above 30 years old	.198
non-smoking and under 30 years old	.462

And the total summation of all possibilities is 1.000.

Question 26.1.6 (6, 10, 25)

(Auto-answer: C. D.)

QUESTION 26.2 (1, 1, 1)

(Auto-answer: C.)

The correct answer from the choices is **C.**

QUESTION 26.3 (2, 2, 2)

(Auto-answer: A.)

QUESTION 26.4 (3, 3, 3)

(Auto-answer: F.)

QUESTION 26.5 (5, 5, 5)

The correct answer	F

1. 78 is an odd number.

The correct answer	T

2. Toronto is in Ontario province.

The correct answer	F

3. $\mathbf{F} = m\mathbf{a}$ is a mathmatical form of Newton's Law of Universal Gravitation.

QUESTION 26.6 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. er	ASDF(:)	**D.**
B. Er	b	**C.**
C. B	eR	**A.** , **B.**
D. asdf(:)	a	**E.**
E. A	ER	**A.** , **B.**

End of auto-answer.

QUESTION 26.7 (7, 14, 50)

(Auto-answer: A.)

QUESTION 26.8 (8, 15, 60)

$$\begin{pmatrix} 4 & 7 & 5 & 6 \\ 6 & 6 & 7 & 5 \\ 4 & 4 & 4 & 4 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 44 \\ 48 \\ 32 \end{pmatrix}$$

$$\begin{pmatrix} \varepsilon & \rho \\ \sigma & \beta \\ \Lambda & \Delta \\ \Omega & \Xi \end{pmatrix} \begin{pmatrix} \gamma \\ \gamma \end{pmatrix} = \begin{pmatrix} \varepsilon \times \gamma + \rho \times \gamma \\ \sigma \times \gamma + \beta \times \gamma \\ \Lambda \times \gamma + \Delta \times \gamma \\ \Omega \times \gamma + \Xi \times \gamma \end{pmatrix}$$

QUESTION 26.9 (9, 16, 70)

-7, 11

***** END OF PAPER, THANKS *****

By: 239(26, 34)

PAPER NUMBER 27

QUESTION 27.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 27.1.1 through 27.1.6).

Question 27.1.1 (6, 8, 23)

(Auto-answer: E.)

Question 27.1.2 (6, 10, 25)

(Auto-answer: C. D.)

Question 27.1.3 (6, 6, 21)

We will use the Newton's Second Law:

$$\mathbf{f} = m\mathbf{a}.$$

Since $\mathbf{f} = (50.0, 5.0, -5000.0)N$ and $m = 50.0kg$, bring them into the above equation, then we get

$$\begin{aligned} \mathbf{a} &= \frac{\mathbf{f}}{m} \\ &= \frac{(50.0, 5.0, -5000.0)N}{50.0kg} \\ &= (1.0000, .10000, -100.00)ms^{-2} \\ &= (12960., 1296.0, -1.2960 \times 10^6)km/h^2. \end{aligned}$$

Question 27.1.4 (6, 11, 26)

The possibility of non-smoking and under 30 years old customer is $(1 - a)(1 - b) = .167$.

Question 27.1.5 (6, 13, 28)

5;

4;

The operation is MULTIPLICATION and the result is 20.000.

Question 27.1.6 (6, 7, 22)

(Auto-answer: I.)

QUESTION 27.2 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. er	b	**C.**
B. A= 6/ 2	ER	**A.**
C. B	YJH	**E.**
D. asdf(:)	a= 3	**B.**
E. yjh	ASDF(:)	**D.**

End of auto-answer.

QUESTION 27.3 (3, 3, 3)

(Auto-answer: A.)

QUESTION 27.4 (2, 2, 2)

(Auto-answer: E.)

QUESTION 27.5 (1, 1, 1)

(Auto-answer: D.)

The correct answer from the choices is **D.**

QUESTION 27.6 (5, 5, 5)

The correct answer	F

1. 47 is an even number.

The correct answer	F

2. Montreal is in Ontario province.

The correct answer	T

3. $\mathbf{F} = m\mathbf{a}$ is a mathmatical form of the Newton's Second Law.

QUESTION 27.7 (8, 15, 60)

$$\begin{pmatrix} 5 & 7 & 7 & 6 \\ 5 & 4 & 6 & 5 \\ 6 & 6 & 5 & 5 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 50 \\ 40 \\ 44 \end{pmatrix}$$

$$\begin{pmatrix} \zeta & \Theta \\ \Xi & \Theta \\ \eta & \gamma \\ \rho & \delta \end{pmatrix} \begin{pmatrix} \beta \\ \beta \end{pmatrix} = \begin{pmatrix} \zeta \times \beta + \Theta \times \beta \\ \Xi \times \beta + \Theta \times \beta \\ \eta \times \beta + \gamma \times \beta \\ \rho \times \beta + \delta \times \beta \end{pmatrix}$$

QUESTION 27.8 (7, 14, 50)

(Auto-answer: B.)

QUESTION 27.9 (9, 16, 70)

25, -13

***** END OF PAPER, THANKS *****

By: 239(26, 34)

PAPER NUMBER 28

QUESTION 28.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 28.1.1 through 28.1.6).

Question 28.1.1 (6, 11, 26)

The possibility of non-smoking and equal or above 30 years old customer is $(1-a)(1-b) = .160$.

Question 28.1.2 (6, 7, 22)

(Auto-answer: C.)

Question 28.1.3 (6, 10, 25)

(Auto-answer: C. D.)

Question 28.1.4 (6, 6, 21)

We will use the Newton's Second Law:

$$\mathbf{f} = m\mathbf{a}.$$

Since $\mathbf{f} = (70.0, 4.0, -9000.0)N$ and $m = 56.0kg$, bring them into the above equation, then we get

$$\begin{aligned} \mathbf{a} &= \frac{\mathbf{f}}{m} \\ &= \frac{(70.0, 4.0, -9000.0)N}{56.0kg} \\ &= (1.2500, 7.1429 \times 10^{-2}, -160.71)ms^{-2} \\ &= (16200., 925.71, -2.0829 \times 10^{6})km/h^2. \end{aligned}$$

Question 28.1.5 (6, 12, 27)

Customer	Possibility
smoking and equal-or-above 30 years old	8.40×10^{-2}
smoking and under 30 years old	3.60×10^{-2}
non-smoking and equal-or-above 30 years old	.616
non-smoking and under 30 years old	.264

And the total summation of all possibilities is 1.000.

Question 28.1.6 (6, 9, 24)

By using Newton's Law of Universal Gravitation:

$$F = G\frac{(Sun's\ \ mass) \times (Planet's\ \ mass)}{(distance)^2},$$

where $G = 6.67 \times 10^{-11} Nm^2(kg)^{-2}$, the forces can be easily calculated as

The Planet	Mass (kg)	Distanace from Sun (m)	The Force (N)
Mercury	$5.00000000 \times 10^{24}$	$2.000000000 \times 10^{24}$	7.50×10^{-10}
Venus	6.00×10^{24}	4.00×10^{24}	2.25×10^{-10}
Earth	7.00×10^{24}	5.00×10^{24}	1.68×10^{-10}
Mars	7.00×10^{24}	7.00×10^{24}	8.58×10^{-11}
Jupiter	5.00×10^{24}	3.00×10^{24}	$3.33 \times 10^{-10}3$
Saturn	7.00×10^{24}	6.00×10^{24}	1.17×10^{-10}
Uranus	9.00×10^{24}	6.00×10^{24}	1.50×10^{-10}
Neptune	5.00×10^{24}	7.00×10^{24}	6.13×10^{-11}

QUESTION 28.2 (5, 5, 5)

The correct answer	T

1. 80 is an even number.

The correct answer	T

2. Toronto is in Ontario province.

The correct answer	F

3. $|\mathbf{F}| = Gm_1m_2r^{-2}$ is a mathmatical form of the Newton's Second Law.

QUESTION 28.3 (3, 3, 3)

(Auto-answer: A.)

QUESTION 28.4 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. asdf(:)	b	**B.**
B. B	a	**D.**
C. yjh	YJH	**C.**
D. A	eR	**E.**
E. er	ASDF(:)	**A.**

End of auto-answer.

QUESTION 28.5 (1, 1, 1)

(Auto-answer: G.)

The correct answer from the choices is **G.**

QUESTION 28.6 (2, 2, 2)

(Auto-answer: E.)

QUESTION 28.7 (8, 15, 60)

$$\begin{pmatrix} 6 & 5 & 6 & 4 \\ 4 & 5 & 4 & 6 \\ 5 & 6 & 5 & 4 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 42 \\ 38 \\ 40 \end{pmatrix}$$

$$\begin{pmatrix} \beta & \Gamma \\ \epsilon & \beta \\ \eta & \beta \\ \Xi & \epsilon \end{pmatrix} \begin{pmatrix} \beta \\ \gamma \end{pmatrix} = \begin{pmatrix} \beta \times \beta + \Gamma \times \gamma \\ \epsilon \times \beta + \beta \times \gamma \\ \eta \times \beta + \beta \times \gamma \\ \Xi \times \beta + \epsilon \times \gamma \end{pmatrix}$$

QUESTION 28.8 (7, 14, 50)
(Auto-answer: B.)
QUESTION 28.9 (9, 16, 70)
17, -31

***** END OF PAPER, THANKS *****
By: 239(26, 34)

PAPER NUMBER 29

QUESTION 29.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 29.1.1 through 29.1.6).

Question 29.1.1 (6, 8, 23)

(Auto-answer: C.)

Question 29.1.2 (6, 11, 26)

The possibility of non-smoking and under 30 years old customer is $(1 - a)(1 - b) = .204$.

Question 29.1.3 (6, 9, 24)

By using Newton's Law of Universal Gravitation:

$$F = G\frac{(Sun's\ \ mass) \times (Planet's\ \ mass)}{(distance)^2},$$

where $G = 6.67 \times 10^{-11} Nm^2(kg)^{-2}$, the forces can be easily calculated as

The Planet	Mass (kg)	Distanace from Sun (m)	The Force (N)
Mercury	$3.00000000 \times 10^{24}$	$8.000000000 \times 10^{24}$	2.50×10^{-11}
Venus	6.00×10^{24}	9.00×10^{24}	3.95×10^{-11}
Earth	7.00×10^{24}	4.00×10^{24}	2.33×10^{-10}
Mars	6.00×10^{24}	2.00×10^{24}	8.00×10^{-10}
Jupiter	9.00×10^{24}	3.00×10^{24}	$5.34 \times 10^{-10}3$
Saturn	4.00×10^{24}	8.00×10^{24}	3.33×10^{-11}
Uranus	4.00×10^{24}	6.00×10^{24}	5.93×10^{-11}
Neptune	9.00×10^{24}	3.00×10^{24}	5.34×10^{-10}

Question 29.1.4 (6, 13, 28)

7;

8;

The operation is ADDITION and the result is 15.000.

Question 29.1.5 (6, 12, 27)

Customer	Possibility
smoking and equal-or-above 30 years old	.490
smoking and under 30 years old	.300
non-smoking and equal-or-above 30 years old	.130
non-smoking and under 30 years old	7.98×10^{-2}

And the total summation of all possibilities is 1.000.

Question 29.1.6 (6, 7, 22)

(Auto-answer: C.)

QUESTION 29.2 (2, 2, 2)

(Auto-answer: E.)

QUESTION 29.3 (3, 3, 3)

(Auto-answer: E.)

QUESTION 29.4 (5, 5, 5)

The correct answer	T

1. 30 is an even number.

The correct answer	F

2. Montreal is in Ontario province.

The correct answer	T

3. $\mathbf{F} = m\mathbf{a}$ is a mathmatical form of the Newton's Second Law.

QUESTION 29.5 (1, 1, 1)

(Auto-answer: E.)

The correct answer from the choices is **E.**

QUESTION 29.6 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. Er	YJH	**E.**
B. C	eR	**A.** , **C.**
C. er	b	**D.**
D. B	ER	**A.** , **C.**
E. yjh	c	**B.**

End of auto-answer.

QUESTION 29.7 (7, 14, 50)

(Auto-answer: C.)

QUESTION 29.8 (8, 15, 60)

$$\begin{pmatrix} 5 & 6 & 5 & 5 \\ 5 & 5 & 7 & 4 \\ 4 & 6 & 6 & 6 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 42 \\ 42 \\ 44 \end{pmatrix}$$

$$\begin{pmatrix} \Gamma & \Gamma \\ \sigma & \Xi \\ \Lambda & \delta \\ \delta & \rho \end{pmatrix} \begin{pmatrix} \beta \\ \beta \end{pmatrix} = \begin{pmatrix} \Gamma \times \beta + \Gamma \times \beta \\ \sigma \times \beta + \Xi \times \beta \\ \Lambda \times \beta + \delta \times \beta \\ \delta \times \beta + \rho \times \beta \end{pmatrix}$$

QUESTION 29.9 (9, 16, 70)

21, -7

***** END OF PAPER, THANKS *****

By: 239(26, 34)

PAPER NUMBER 30

QUESTION 30.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 30.1.1 through 30.1.6).

Question 30.1.1 (6, 11, 26)

The possibility of non-smoking and under 30 years old customer is $(1-a)(1-b) = .544$.

Question 30.1.2 (6, 6, 21)

We will use the Newton's Second Law:

$$\mathbf{f} = m\mathbf{a}.$$

Since $\mathbf{f} = (90.0, 4.0, -8000.0)N$ and $m = 56.0kg$, bring them into the above equation, then we get

$$\begin{aligned}
\mathbf{a} &= \frac{\mathbf{f}}{m} \\
&= \frac{(90.0, 4.0, -8000.0)N}{56.0kg} \\
&= (1.6071, 7.1429 \times 10^{-2}, -142.86)ms^{-2} \\
&= (20829., 925.71, -1.8514 \times 10^{6})km/h^2.
\end{aligned}$$

Question 30.1.3 (6, 12, 27)

Customer	Possibility
smoking and equal-or-above 30 years old	.135
smoking and under 30 years old	.385
non-smoking and equal-or-above 30 years old	.125
non-smoking and under 30 years old	.355

And the total summation of all possibilities is 1.000.

Question 30.1.4 (6, 8, 23)

(Auto-answer: B.)

Question 30.1.5 (6, 10, 25)

(Auto-answer: C. D.)

Question 30.1.6 (6, 13, 28)

5;

2;

The operation is ADDITION and the result is 7.0000.

QUESTION 30.2 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. C	YJH	**D.**
B. er	ER	**B.** , **C.**
C. Er	c	**A.**
D. yjh	a= 3	**E.**
E. A= 6/ 2	eR	**B.** , **C.**

End of auto-answer.

QUESTION 30.3 (3, 3, 3)

(Auto-answer: B.)

QUESTION 30.4 (1, 1, 1)

(Auto-answer: E.)

The correct answer from the choices is **E.**

QUESTION 30.5 (5, 5, 5)

The correct answer	T

1. 28 is an even number.

The correct answer	T

2. Montreal is in Quebec province.

The correct answer	T

3. $\mathbf{F} = m\mathbf{a}$ is a mathmatical form of the Newton's Second Law.

QUESTION 30.6 (2, 2, 2)

(Auto-answer: B.)

QUESTION 30.7 (8, 15, 60)

$$\begin{pmatrix} 7 & 4 & 5 & 7 \\ 4 & 5 & 6 & 4 \\ 7 & 5 & 5 & 7 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 46 \\ 38 \\ 48 \end{pmatrix}$$

$$\begin{pmatrix} \rho & \beta \\ \zeta & \Theta \\ \Lambda & \Psi \\ \Gamma & \Gamma \end{pmatrix} \begin{pmatrix} \beta \\ \beta \end{pmatrix} = \begin{pmatrix} \rho \times \beta + \beta \times \beta \\ \zeta \times \beta + \Theta \times \beta \\ \Lambda \times \beta + \Psi \times \beta \\ \Gamma \times \beta + \Gamma \times \beta \end{pmatrix}$$

QUESTION 30.8 (7, 14, 50)

(Auto-answer: C.)

QUESTION 30.9 (9, 16, 70)
5, -7

***** END OF PAPER, THANKS *****
By: 239(26, 34)

PAPER NUMBER 31

QUESTION 31.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 31.1.1 through 31.1.6).

Question 31.1.1 (6, 9, 24)

By using Newton's Law of Universal Gravitation:

$$F = G\frac{(Sun's\ \ mass) \times (Planet's\ \ mass)}{(distance)^2},$$

where $G = 6.67 \times 10^{-11} Nm^2(kg)^{-2}$, the forces can be easily calculated as

The Planet	Mass (kg)	Distanace from Sun (m)	The Force (N)
Mercury	$7.00000000 \times 10^{24}$	$5.000000000 \times 10^{24}$	9.34×10^{-11}
Venus	2.00×10^{24}	6.00×10^{24}	1.85×10^{-11}
Earth	9.00×10^{24}	6.00×10^{24}	8.34×10^{-11}
Mars	2.00×10^{24}	5.00×10^{24}	2.67×10^{-11}
Jupiter	5.00×10^{24}	5.00×10^{24}	$6.67 \times 10^{-11}3$
Saturn	4.00×10^{24}	2.00×10^{24}	3.33×10^{-10}
Uranus	7.00×10^{24}	2.00×10^{24}	5.84×10^{-10}
Neptune	4.00×10^{24}	4.00×10^{24}	8.34×10^{-11}

Question 31.1.2 (6, 13, 28)

7;

2;

The operation is SUBTRACTION and the result is 5.0000.

Question 31.1.3 (6, 11, 26)

The possibility of non-smoking and under 30 years old customer is $(1 - a)(1 - b) = 2.82 \times 10^{-2}$.

Question 31.1.4 (6, 7, 22)

(Auto-answer: D.)

Question 31.1.5 (6, 8, 23)

(Auto-answer: A.)

Question 31.1.6 (6, 12, 27)

Customer	Possibility
smoking and equal-or-above 30 years old	7.52×10^{-2}
smoking and under 30 years old	.395
non-smoking and equal-or-above 30 years old	8.48×10^{-2}
non-smoking and under 30 years old	.445

And the total summation of all possibilities is 1.000.

QUESTION 31.2 (3, 3, 3)

(Auto-answer: D.)

QUESTION 31.3 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. yjh	b	**B.**
B. B	ER	**C.**
C. Er	a= 2	**E.**
D. A	YJH	**A.**
E. A= 4/ 2	a	**D.**

End of auto-answer.

QUESTION 31.4 (2, 2, 2)

(Auto-answer: B.)

QUESTION 31.5 (5, 5, 5)

The correct answer	*F*

1. 37 is an even number.

The correct answer	*F*

2. Hull is in Ontario province.

The correct answer	*F*

3. $\mathbf{F} = m\mathbf{a}$ is a mathmatical form of Newton's Law of Universal Gravitation.

QUESTION 31.6 (1, 1, 1)

(Auto-answer: E.)

The correct answer from the choices is **E.**

QUESTION 31.7 (8, 15, 60)

$$\begin{pmatrix} 4 & 6 & 5 & 6 \\ 5 & 4 & 5 & 6 \\ 6 & 5 & 5 & 5 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 42 \\ 40 \\ 42 \end{pmatrix}$$

$$\begin{pmatrix} \Phi & \gamma \\ \Upsilon & \Upsilon \\ \beta & \zeta \\ \Lambda & \Delta \end{pmatrix} \begin{pmatrix} \gamma \\ \beta \end{pmatrix} = \begin{pmatrix} \Phi \times \gamma + \gamma \times \beta \\ \Upsilon \times \gamma + \Upsilon \times \beta \\ \beta \times \gamma + \zeta \times \beta \\ \Lambda \times \gamma + \Delta \times \beta \end{pmatrix}$$

QUESTION 31.8 (7, 14, 50)

(Auto-answer: C.)

QUESTION 31.9 (9, 16, 70)

-7, -1

***** END OF PAPER, THANKS *****

By: 239(26, 34)

PAPER NUMBER 32

QUESTION 32.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 32.1.1 through 32.1.6).

Question 32.1.1 (6, 12, 27)

Customer	Possibility
smoking and equal-or-above 30 years old	.378
smoking and under 30 years old	.162
non-smoking and equal-or-above 30 years old	.322
non-smoking and under 30 years old	.138

And the total summation of all possibilities is 1.000.

Question 32.1.2 (6, 8, 23)

(Auto-answer: C.)

Question 32.1.3 (6, 9, 24)

By using Newton's Law of Universal Gravitation:

$$F = G\frac{(Sun's\ \ mass) \times (Planet's\ \ mass)}{(distance)^2},$$

where $G = 6.67 \times 10^{-11} Nm^2(kg)^{-2}$, the forces can be easily calculated as

The Planet	Mass (kg)	Distanace from Sun (m)	The Force (N)
Mercury	$2.00000000 \times 10^{24}$	$6.000000000 \times 10^{24}$	2.59×10^{-11}
Venus	6.00×10^{24}	3.00×10^{24}	3.11×10^{-10}
Earth	8.00×10^{24}	5.00×10^{24}	1.49×10^{-10}
Mars	5.00×10^{24}	2.00×10^{24}	5.84×10^{-10}
Jupiter	3.00×10^{24}	9.00×10^{24}	$1.73 \times 10^{-11}3$
Saturn	8.00×10^{24}	9.00×10^{24}	4.61×10^{-11}
Uranus	5.00×10^{24}	4.00×10^{24}	1.46×10^{-10}
Neptune	3.00×10^{24}	8.00×10^{24}	2.19×10^{-11}

Question 32.1.4 (6, 7, 22)

(Auto-answer: E.)

Question 32.1.5 (6, 10, 25)

(Auto-answer: A. C.)

Question 32.1.6 (6, 6, 21)

We will use the Newton's Second Law:

$$\mathbf{f} = m\mathbf{a}.$$

Since $\mathbf{f} = (50.0, 5.0, -3000.0)N$ and $m = 54.0kg$, bring them into the above equation, then we get

$$\begin{aligned}
\mathbf{a} &= \frac{\mathbf{f}}{m} \\
&= \frac{(50.0, 5.0, -3000.0)N}{54.0kg} \\
&= (.92593, 9.2593 \times 10^{-2}, -55.556)ms^{-2} \\
&= (12000., 1200.0, -720000.)km/h^2.
\end{aligned}$$

QUESTION 32.2 (5, 5, 5)

The correct answer	T

1. 5 is an odd number.

The correct answer	T

2. Kingston is in Ontario province.

The correct answer	T

3. $\mathbf{F} = m\mathbf{a}$ is a mathmatical form of the Newton's Second Law.

QUESTION 32.3 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. yjh	eR	**C.** , **D.**
B. C	b	**E.**
C. er	YJH	**A.**
D. Er	ER	**C.** , **D.**
E. B	c	**B.**

End of auto-answer.

QUESTION 32.4 (2, 2, 2)

(Auto-answer: E.)

QUESTION 32.5 (3, 3, 3)

(Auto-answer: A.)

QUESTION 32.6 (1, 1, 1)

(Auto-answer: F.)

The correct answer from the choices is **F.**

QUESTION 32.7 (8, 15, 60)

$$\begin{pmatrix} 7 & 4 & 4 & 7 \\ 6 & 4 & 5 & 7 \\ 5 & 6 & 6 & 5 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 44 \\ 44 \\ 44 \end{pmatrix}$$

$$\begin{pmatrix} \Xi & \eta \\ \Upsilon & \Lambda \\ \delta & \delta \\ \rho & \sigma \end{pmatrix} \begin{pmatrix} \beta \\ \beta \end{pmatrix} = \begin{pmatrix} \Xi \times \beta + \eta \times \beta \\ \Upsilon \times \beta + \Lambda \times \beta \\ \delta \times \beta + \delta \times \beta \\ \rho \times \beta + \sigma \times \beta \end{pmatrix}$$

QUESTION 32.8 (7, 14, 50)

(Auto-answer: D.)

QUESTION 32.9 (9, 16, 70)

-3, 5

***** END OF PAPER, THANKS *****

By: 239(26, 34)

PAPER NUMBER 33

QUESTION 33.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 33.1.1 through 33.1.6).

Question 33.1.1 (6, 12, 27)

Customer	Possibility
smoking and equal-or-above 30 years old	.431
smoking and under 30 years old	8.80×10^{-3}
non-smoking and equal-or-above 30 years old	.549
non-smoking and under 30 years old	1.12×10^{-2}

And the total summation of all possibilities is 1.0000.

Question 33.1.2 (6, 11, 26)

The possibility of non-smoking and under 30 years old customer is $(1 - a)(1 - b) = 9.12 \times 10^{-2}$.

Question 33.1.3 (6, 13, 28)

5;

2;

The operation is MULTIPLICATION and the result is 10.000.

Question 33.1.4 (6, 9, 24)

By using Newton's Law of Universal Gravitation:

$$F = G\frac{(Sun's\ \ mass) \times (Planet's\ \ mass)}{(distance)^2},$$

where $G = 6.67 \times 10^{-11} Nm^2(kg)^{-2}$, the forces can be easily calculated as

The Planet	Mass (kg)	Distanace from Sun (m)	The Force (N)
Mercury	$3.00000000 \times 10^{24}$	$2.000000000 \times 10^{24}$	1.00×10^{-10}
Venus	7.00×10^{24}	5.00×10^{24}	3.74×10^{-11}
Earth	7.00×10^{24}	9.00×10^{24}	1.15×10^{-11}
Mars	6.00×10^{24}	5.00×10^{24}	3.20×10^{-11}
Jupiter	6.00×10^{24}	4.00×10^{24}	$5.00 \times 10^{-11}3$
Saturn	7.00×10^{24}	7.00×10^{24}	1.91×10^{-11}
Uranus	8.00×10^{24}	5.00×10^{24}	4.27×10^{-11}
Neptune	5.00×10^{24}	5.00×10^{24}	2.67×10^{-11}

Question 33.1.5 (6, 8, 23)

(Auto-answer: B.)

Question 33.1.6 (6, 10, 25)

(Auto-answer: A.)

QUESTION 33.2 (3, 3, 3)

(Auto-answer: A.)

QUESTION 33.3 (5, 5, 5)

The correct answer	T

1. 60 is an even number.

The correct answer	T

2. Kingston is in Ontario province.

The correct answer	T

3. $\mathbf{F} = m\mathbf{a}$ is a mathmatical form of the Newton's Second Law.

QUESTION 33.4 (1, 1, 1)

(Auto-answer: G.)

The correct answer from the choices is **G.**

QUESTION 33.5 (2, 2, 2)

(Auto-answer: G.)

QUESTION 33.6 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. B	ER	**C.**
B. asdf(:)	a= 2	**E.**
C. er	YJH	**D.**
D. yjh	b	**A.**
E. A= 4/ 2	ASDF(:)	**B.**

End of auto-answer.

QUESTION 33.7 (8, 15, 60)

$$\begin{pmatrix} 6 & 6 & 6 & 4 \\ 5 & 4 & 5 & 6 \\ 4 & 4 & 5 & 4 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 44 \\ 40 \\ 34 \end{pmatrix}$$

$$\begin{pmatrix} \Theta & \eta \\ \rho & \Gamma \\ \zeta & \Delta \\ \alpha & \Theta \end{pmatrix} \begin{pmatrix} \beta \\ \beta \end{pmatrix} = \begin{pmatrix} \Theta \times \beta + \eta \times \beta \\ \rho \times \beta + \Gamma \times \beta \\ \zeta \times \beta + \Delta \times \beta \\ \alpha \times \beta + \Theta \times \beta \end{pmatrix}$$

QUESTION 33.8 (7, 14, 50)
(Auto-answer: B.)
QUESTION 33.9 (9, 16, 70)
9, -19

***** END OF PAPER, THANKS *****
By: 239(26, 34)

PAPER NUMBER 34

QUESTION 34.1 (6)

Please answer ONLY 5 of the following 6 questions (Questions 34.1.1 through 34.1.6).

Question 34.1.1 (6, 8, 23)

(Auto-answer: C.)

Question 34.1.2 (6, 9, 24)

By using Newton's Law of Universal Gravitation:

$$F = G\frac{(Sun's\ \ mass) \times (Planet's\ \ mass)}{(distance)^2},$$

where $G = 6.67 \times 10^{-11} Nm^2(kg)^{-2}$, the forces can be easily calculated as

The Planet	Mass (kg)	Distanace from Sun (m)	The Force (N)
Mercury	$7.00000000 \times 10^{24}$	$8.000000000 \times 10^{24}$	4.38×10^{-11}
Venus	4.00×10^{24}	6.00×10^{24}	4.45×10^{-11}
Earth	5.00×10^{24}	7.00×10^{24}	4.08×10^{-11}
Mars	6.00×10^{24}	7.00×10^{24}	4.90×10^{-11}
Jupiter	4.00×10^{24}	4.00×10^{24}	$1.00 \times 10^{-10}3$
Saturn	4.00×10^{24}	7.00×10^{24}	3.27×10^{-11}
Uranus	3.00×10^{24}	3.00×10^{24}	1.33×10^{-10}
Neptune	7.00×10^{24}	3.00×10^{24}	3.11×10^{-10}

Question 34.1.3 (6, 7, 22)

(Auto-answer: A.)

Question 34.1.4 (6, 11, 26)

The possibility of non-smoking and equal or above 30 years old customer is $(1-a)(1-b) = 6.96 \times 10^{-2}$.

Question 34.1.5 (6, 6, 21)

We will use the Newton's Second Law:

$$\mathbf{f} = m\mathbf{a}.$$

Since $\mathbf{f} = (20.0, 3.0, -6000.0)N$ and $m = 54.0kg$, bring them into the above equation, then we get

$$\begin{aligned}\mathbf{a} &= \frac{\mathbf{f}}{m} \\ &= \frac{(20.0, 3.0, -6000.0)N}{54.0kg} \\ &= (.37037, 5.5556 \times 10^{-2}, -111.11)ms^{-2} \\ &= (4800.0, 720.00, -1.4400 \times 10^{6})km/h^2.\end{aligned}$$

Question 34.1.6 (6, 10, 25)
(Auto-answer: C. D.)
QUESTION 34.2 (2, 2, 2)
(Auto-answer: C.)
QUESTION 34.3 (1, 1, 1)
(Auto-answer: G.)
The correct answer from the choices is **G.**
QUESTION 34.4 (3, 3, 3)
(Auto-answer: E.)
QUESTION 34.5 (5, 5, 5)

The correct answer	T

1. 97 is an odd number.

The correct answer	T

2. Kingston is in Ontario province.

The correct answer	T

3. $\mathbf{F} = m\mathbf{a}$ is a mathmatical form of the Newton's Second Law.

QUESTION 34.6 (4, 4, 4)

Auto-answer:

Column Left	Column Right	Answers
A. C	YJH	**E.**
B. A	a	**B.**
C. B	c	**A.**
D. asdf(:)	ASDF(:)	**D.**
E. yjh	b	**C.**

End of auto-answer.

QUESTION 34.7 (8, 15, 60)

$$\begin{pmatrix} 5 & 5 & 4 & 6 \\ 6 & 4 & 7 & 5 \\ 7 & 7 & 7 & 7 \end{pmatrix} \times \begin{pmatrix} 2 \\ 2 \\ 2 \\ 2 \end{pmatrix} = \begin{pmatrix} 40 \\ 44 \\ 56 \end{pmatrix}$$

$$\begin{pmatrix} \zeta & \varepsilon \\ \gamma & \Gamma \\ \Theta & \varepsilon \\ \gamma & \zeta \end{pmatrix} \begin{pmatrix} \beta \\ \beta \end{pmatrix} = \begin{pmatrix} \zeta \times \beta + \varepsilon \times \beta \\ \gamma \times \beta + \Gamma \times \beta \\ \Theta \times \beta + \varepsilon \times \beta \\ \gamma \times \beta + \zeta \times \beta \end{pmatrix}$$

QUESTION 34.8 (7, 14, 50)

(Auto-answer: C.)

QUESTION 34.9 (9, 16, 70)

21, 20

***** END OF PAPER, THANKS *****

By: 239(26, 34)

STATISTICS

Initial seed for random numbers	239
First paper number	26
Last paper number	34
Total papers to be generated	9
Total marks from input file	100.00
Total actual marks	100.00
Total lines of the input file	915
Total QUESTIONs in input file	16
Total CHOOSEs in input file	1
Total NOTEs in input file	2
Total (big) questions in each paper	9
Total actual (sub)questions in each paper	14
Total (sub)questions to be answered in each paper	13

For each big question

Big question	Choose?	Questions needed	Questions from	Question IDs
1(4,3.13)	No	1(1, 1)	1(1 ,3.13 ,10.00)	1
2(4,1.56)	No	1(1, 1)	2(0 ,1.56 ,5.00)	2
3(4,1.56)	No	1(1, 1)	3(1 ,1.56 ,5.00)	3
4(4,3.13)	No	1(1, 1)	4(0 ,3.13 ,10.00)	4
5(4,1.56)	No	1(1, 1)	5(0 ,1.56 ,5.00)	5
6(2,62.50 ,40.00)	1	6(5, 8)	6(0 ,12.50 ,5.00) 7(0 ,12.50 ,5.00) 8(0 ,12.50 ,6.00) 9(0 ,12.50 ,8.00) 10(1 ,12.50 ,5.70) 11(0 ,12.50 ,12.40) 12(0 ,12.50 ,24.50)	21 22 23 24 25 26 27

Big question	Choose?	Questions needed	Questions from	Question IDs
			13(0 ,12.50 ,67.20)	28
7(8,12.50)	No	1(1, 1)	14(1 ,12.50 ,40.00)	50
8(8,12.50)	No	1(1, 1)	15(0 ,12.50 ,40.00)	60
9(14,1.56)	No	1(1, 1)	16(0 ,1.56 ,5.00)	70