	m #2	
maple	√ Ч	
A 5 x 16	5 ka vocket is accelerative	ig straight up. The Thrusters
p va due	e an univard force of 1	.25 × 107 N, and air resistance is
4 5 x 16	6 of John Wards a John	a FBD inquoling weight of the
VACUES	- Mac Marylet and any	esistance, b) what is the voctets
	evation?	
	1.25×107 N	$F=M \cdot A \rightarrow M=A$
17	1.70×10-79	$A = 1.25 \times 10^{7} - (4.5 \times 10^{6} + 4.9 \times 10^{6})$
		$A = \frac{1.5 \times 10^5}{5 \times 10^5}$
		3 ~ 10 -
	W= (6×105) .9.8 = 4900000,	N= 3.1×106 5×105
FAR= 4	5×10°N W=4.9×106N	
(-		a = 6.2 m/s2
1		a - Cix on s
m	ass 90 kg a) According to.	70 kg pushes on a player with Newtons 3rd law, if the first
mi pli	ager exerts a force of -	A STATE OF THE STA
mi pli	ass 90 kg a) According to .	Newtons 3rd law, if the first
PI PI	ass 90 kg a) According to . ager exerts a force of - nar is the force the 80 ceyer?	Newtons 3rd law, if the first
PI PI	ager exerts a force of -	Newtons 3rd law, if the first
PI PI	ass 90 kg a) According to a ager exerts a force of a nat is the force the 80 ceyer?	Newsons 3rd law, if the first 100N on the second player, econd player exerts on the first
P10 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	ass 90 kg a) According to a eyer exerts a force of a nat is the force the 80 ceyer? 2) - 700 N rocket sted is decelerated	Alwhors 3rd law, if the first room on the second player, excited on the first at a rate of 200 m/s², and it
P1 (1) (2) (3) A	ass 90 kg a) According to a ayer exerts a force of a nat is the force the 80 ceyer? 2) - 700 N rocket sud is decererated as a wass of 2000 kg. T	At a vale of 200 m/s ² , and it here is a constant air resistance
3) A	ass 90 kg a) According to a ayer exerts a force of a nar is the force the 80 ceyer? 2) - 700 N rocket sud is decelerated has a mass of 2000 kg. To bree of 1000 N. What addi	At a rate of 200 m/s², and it here is a constant air resistance thomas force is required to give
3) A	ass 90 kg a) According to a ayer exerts a force of a nat is the force the 80 ceyer? 2) - 700 N rocket sud is decererated as a wass of 2000 kg. T	At a rate of 200 m/s², and it here is a constant air resistance thomas force is required to give
3) A	ass 90 kg a) According to a ayer exerts a force of a nar is the force the 80 ceyer? 2) - 700 N rocket sud is decelerated has a mass of 2000 kg. To bree of 1000 N. What addi	At a rate of 200 m/s², and it here is a constant air resistance thomas force is required to give
3) A	ass 90 kg a) According to a ayer exerts a force of a war is the force the 80 ceyer? 2) - 700 N rocket sted is decelerated as a mass of 2000 kg. To bree of 1000 N. What addithe rocket the deceleration	At a rate of 200 m/s², and it here is a constant air resistance thomas force is required to give
3) A	ass 90 kg a) According to a ayer exerts a force of a nat is the force the 80 ceyer? 2) - 700 N rocket sted is decelerated has a mass of 2000 kg. To bree of 1000 N. What addit he rocket the deceleration F= M. a	At a rate of 200 m/s², and it here is a constant air resistance thomas force is required to give
3) A	ass 90 kg a) According to a ager exerts a force of a nat is the force the se ceyly? 2) - 700 N Procket Sted is decenerated has a mass of 2000 kg. To broke of 1000 N. What add is the rocket the deceneration F= M · a F, + F2 = M · a	At a vale of 200 m/s ² , and it here is a constant air resistance

b) will down an expression for Fret, x c) will down an expression for Fret, y cl) assuming Fret =0, calcular we kns:on in the two ropes $T_1 = \frac{1}{15^6}$ $T_2 = \frac{1}{15^6}$ $T_3 = \frac{1}{15^6}$ $T_4 = \frac{1}{15^6}$ $T_5 = \frac{1}{15^6}$ $T_5 = \frac{1}{15^6}$ $T_7 =$	INCINA.	ing the two tension rectors and the
b) will down an expression for Fret, x c) while down an expression for Fret, x cl) assuming Fret =0, calculate the kinston in the two ropes T_{100}^{**} T_{2}^{**}	6.0146	
cl) assuming $\overline{F}_{net} = 0$, calculate the kinston in the two ropes T_1 , is: T_2 T_2 T_3 T_4 T_5 T_7 $T_$	b) wrike down an e.	xpression for Fact &
$\begin{array}{c} T_{1} = 0 \\ T_{2} = 0 \\ T_{3} = 0 \\ T_{4} = 0 \\ T_{5} = 0 \\$	of white about an e	xoussion for Fact
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ol) assuming Fret =0	, carevan we knsion in the two ropes
$T_{2x} = cos(10^{\circ}) \cdot T_{2} \qquad T_{2y} = sin(10^{\circ}) \cdot T_{2}$ $C) F_{Nethy} = T_{1} \cdot sin(10^{\circ}) + T_{2} \cdot sin(10^{\circ}) - 744.8 = 0$ $T_{1x} = T_{1} \cdot sin(10^{\circ}) + T_{2} \cdot sin(10^{\circ}) - 744.8 = 0$ $T_{1x} = T_{1} \cdot cos(10^{\circ}) \qquad T_{1x} = T_{1} \cdot sin(10^{\circ}) + T_{2} \cdot sin(10^{\circ}) - 744.8 = 0$ $T_{1x} = T_{1} \cdot cos(10^{\circ}) \qquad T_{1y} = T_{1} \cdot sin(10^{\circ}) \qquad T_{2} \cdot cos(10^{\circ}) (sin(75^{\circ})) + T_{2} \cdot sin(10^{\circ}) - 744.8$ $T_{2} \cdot cos(10^{\circ}) = T_{1} \cdot cos(10^{\circ}) \qquad T_{2} \cdot sin(10^{\circ}) = 744.8$ $T_{2} \cdot cos(10^{\circ}) = T_{1} \cdot cos(10^{\circ}) \qquad T_{2} \cdot sin(10^{\circ}) = 744.8$ $T_{3} \cdot cos(10^{\circ}) = T_{1} \cdot cos(10^{\circ}) \qquad T_{3} \cdot sin(10^{\circ}) = 744.8$ $T_{4} \cdot cos(10^{\circ}) = T_{1} \cdot cos(10^{\circ}) \qquad T_{2} \cdot cos(10^{\circ}) = T_{3} \cdot sin(10^{\circ}) = T_{4} \cdot sin(10$	T ₁ 150	
$C) F_{Ne+ty} = T_{i} \cdot \sin(10^{s}) + T_{2} \cdot \sin(10^{s}) - 744.8 = 0$ $T_{i,y} = T_{i,y} \cdot \sin(10^{s}) + T_{i,y} \cdot$	1000	$\cos(co') = \frac{1}{T_2}$ $\sin(co') = \frac{1}{T_2}$
$C) F_{Ne+ty} = T_{i} \cdot \sin(10^{s}) + T_{2} \cdot \sin(10^{s}) - 744.8 = 0$ $T_{i,y} = T_{i,y} \cdot \sin(10^{s}) + T_{i,y} \cdot$		T2x = COS(10). T2 T2y = SIM(10) . T2
S = 76.4.1 = 144.8.4 $ S = 76.4.1 = 144.8.4$ $ S = 76.6.1 = 144.8$ $ S$	100000 0 0000	
$ \frac{\cos(\theta) = \frac{A}{h}}{\cos(\cos(75^{\circ}))} = \frac{1}{h} \frac{\sin(75^{\circ}) + T_{z} \sin(10^{\circ}) - 744.8 = 0}{\sin(15^{\circ})} \frac{T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ})}{\cos(75^{\circ})} = \frac{T_{z} \cos(65^{\circ})}{\tan(75^{\circ})} \frac{T_{z} \cos(65^{\circ})}{\cos(75^{\circ})} (\sin(75^{\circ})) + T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) + T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) + T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) + T_{z} \sin(15^{\circ}) + T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) + T_{z} \sin(15^{\circ}) + T_{z} \sin(15^{\circ}) - T_{z} \sin(15^{\circ}) + T_{z}$	h1 = 76x 9 8 - 744 8	
b) $F_{ne+x} = -T_1 \cdot cos(7s^*) + T_2 \cdot cos(10^*) = 0$ $T_2 \cdot 3.675 + T_2 \cdot 8 \cdot 10 \cdot (10^*) = 744.8$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_3 \cdot s \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_4 = 736.3 \text{ M}$	A COSCOLA	Seeded a Desirate of Table 2
b) $F_{ne+x} = -T_1 \cdot cos(7s^*) + T_2 \cdot cos(10^*) = 0$ $T_2 \cdot 3.675 + T_2 \cdot 8 \cdot 10 \cdot (10^*) = 744.8$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_3 \cdot s \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_4 = 736.3 \text{ M}$	T. (15°) (05(75') = T.x	5 W (8) = W 1, SIN (75°) + 12 SIN (10°) - 744.8 = 0
b) $F_{ne+x} = -T_1 \cdot cos(7s^*) + T_2 \cdot cos(10^*) = 0$ $T_2 \cdot 3.675 + T_2 \cdot 8 \cdot 10 \cdot (10^*) = 744.8$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_2 \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_3 \cdot s \cdot cos(10^*) = T_1 \cdot cos(7s^*)$ $T_4 = 736.3 \text{ M}$	75'	T_ T_son(10) - 75
$T_{2}(3.675 + 8in(10^{\circ})) = 744.8$ $T_{2} \cdot cos(10^{\circ}) = T_{1} cos(75^{\circ})$ $T_{2} \cdot 3.8486 = 744.8$ $d) T_{2} = 193.5 \text{ N}$ $T_{2} \cos(10^{\circ}) = T_{1} \cos(75^{\circ})$ $193.5 \cdot cos(10^{\circ})$ $cos(75^{\circ})$ $T_{1} = 736.3 \text{ N}$	-T,x 1,x = 1, COS (75°)	(05(75°)
$T_{2}(3.675 + 8in(10^{\circ})) = 744.8$ $T_{2} \cdot cos(10^{\circ}) = T_{1} cos(75^{\circ})$ $T_{2} \cdot 3.8486 = 744.8$ $d) T_{2} = 193.5 N$ $T_{2} \cdot cos(10^{\circ}) = T_{1} cos(75^{\circ})$ $193.5 \cdot cos(10^{\circ})$ $cos(75^{\circ})$ $T_{1} = 736.3 N$	b) Fretx = -T, COS(75°) + T2	· cos(10°) = 0 T. 3.675 + T. 8 M(10°) = 744.8
$T_{2} \cdot cos(10^{\circ}) = T_{1} cos(75^{\circ})$ $T_{2} \cdot 3.8486 = 744.8$ $T_{2} \cdot cos(10^{\circ}) = T_{1} cos(75^{\circ})$ $193.5 \cdot cos(10^{\circ}) = T_{1} cos(75^{\circ})$ $T_{1} = 736.3 \text{ A}$		
$T_{2} \cos(10^{\circ}) = T_{1} \cos(75^{\circ})$ $193.5 \cdot \cos(10^{\circ})$ $\cos(75^{\circ})$ $T_{1} = 736.3 \text{ N}$	T2 . cos(10.) = T, cos(75.)	Tz · 3. 8486 = 744.8
$ \begin{array}{c} $		d) T2 = 193.5N
$ \begin{array}{c} $	T2 COS(10°) = T	
COS (75°) T ₁ = 736.3 N		here is the restaurance and inference after
$T_1 = 736.3 \text{ N}$	- 1	the man of the season of the s
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3) suppose the skier reaches a top speed of 40 mg, It his area 18 0.75m², density of air 13 1.225kg/m², and c=0.75, What is the magnitude of the drag force in Newtons? Fo= = CPAV& $F_D = \frac{1}{2}(0.75)(1.825 \frac{kg}{m^3})(0.75 m^2)(40 \frac{m}{5})^2 + kg m/5^2 = N$ Fp= 551.25 N 4) A mass of 2300 kg is place on tup of a 10m long Wooden beam w/radius 4cm. If the length of the beam dechases by 3mm, what is me young's modules of the wood? Stress = Yx Strain or A = y (Ax) F=2300.9.8=22540 N A= T1 2 = T1(0.04)2 = 0.0016 TT m2 Ax = 0.003 m 1 = 10 m y = FL = 22540(10) AAX = 0.00167.0.003 y=14947301738.7 N/m2

1)	a pitting of the contract of
/	and the ball votake activities a ball at 144 km/hr
	VALUE OF THE COMPANY
	as he throws it in radians per second?
	The state of the s
	$W = \sqrt{100000000000000000000000000000000000$
	0.5m
	The second secon
4)	Policy of the second se
2)	of 0,9 km radius on a righway w/a 120 km/hr
	of 0,9 km radius on a weaking an inter 120 km/his
	Speed limit?
	120 km/1hr \ (1000 m)
	MAS 8M(0) - MV2
	$mg \frac{sm(0)}{cos(0)} = \frac{mv^2}{v}$ $v = \frac{120 \text{ km}}{\text{hr}} \frac{1\text{hr}}{3600s} \left(\frac{1000 \text{ m}}{11000}\right)$
	V= 35 33 m/s
-	$tan(\theta) = \frac{v^2}{rq}$ $tan(\theta) = \frac{v^2}{rq}$ $V = 0.9 \text{ km} = 900 \text{ m}$
	$tan(0) = \frac{v}{ra}$ $v = 0.9 \text{km} = 900 \text{m}$
	(ag 27)2 W2/27
	$\theta = \tan^{-1}\left(\frac{\sqrt{2}}{rq}\right)$ $\theta = \tan^{-1}\left(\frac{(33.33)^2 m^2/s^2}{9.8 m/s^2 \cdot 900 m}\right)$
	0=tan-1 (0.125976)
	0=7.189
	0 - 11.10
1	
)	
-	
2	
•	

3) a) which path may be taken at a higher speed, it both Paths correspond to the same force of friction and cent force? b) Suppose parm I has a radius of comann of 400m and pam 2 has a radius of comatre of 800m. M=1 if Ff = Fc what are the tangental velocities of each a) part 2 can be taken at a vacucar? higher speed b) the tangential velocity of part 2 will be twee that of pan 1?