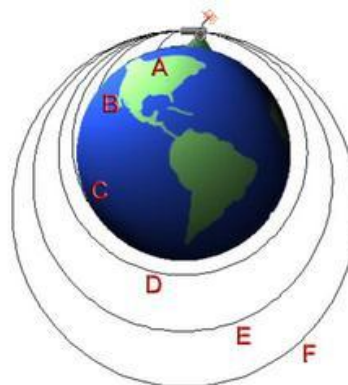
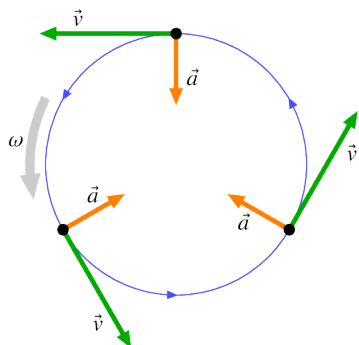


Name:

Date:

Period:

Chapter 5 (Circular Motion)



Homework Check A (collected Mon, Nov 18)

Basic Circular Motion p. 132 #1, 2, 4, 5, 69 Complete by Thu, Nov 14

STAMP
HERE
5 POINTS

Multi-Force/Friction pp. 132-133 #7, 8, 15, 19, 73 Complete by Mon, Nov 18

Homework Quiz

STAMP
HERE
5 POINTS

Answers

- | | | |
|--|------------------------|----------------------------|
| 1. (a) 1.01 m/s^2 ; (b) 22.7 N | 69. 28.3 m/s | 19. (a) 5965 N ; |
| 2. $5.4 g$'s | 7. 33.6 m/s | (b) 379.3 N ; |
| 4. 3.9 m/s^2 | 8. 0.57 | (c) 29.4 m/s |
| 5. 13.3 m/s | 15. 0.21 | 73. 9.1 m/s |

Homework will be accepted for full credit until the test. Homework turned in after the test will be accepted for half credit until the Unit 3 Test. *Please remember that you will not be eligible to complete test corrections if you do not turn in your homework.*

Name: _____

Date: _____

Period: _____

Chapter 5 (Circular Motion)

Homework Check B (collected on Test Day)

Universal Gravitation pp. 133-134 #28, 29, 32, 33, 35, 39 Complete by Fri, Nov 24
SEE REFERENCE PAGE FOR A LIST OF PLANETARY MASSES/RADII

STAMP
HERE
5 POINTS

Satellites p. 134 #46, 52, 80 Complete by Fri, Nov 24
SEE REFERENCE PAGE FOR A LIST OF PLANETARY MASSES/RADII

STAMP
HERE
5 POINTS

Conceptual Questions pp. 130-131 #2, 3, 5, 8, 10, 11, 20 Complete by Fri, Nov 24
THESE QUESTIONS SHOULD HAVE AT LEAST ONE FULL SENTENCE OF EXPLANATION

STAMP
HERE
5 POINTS

Misconceptual Questions pp. 130-131 #1-10, 12 Complete by Fri, Nov 24
YOU DO NOT NEED TO GET THIS ONE STAMPED, BUT THESE ARE GOOD REVIEW FOR YOUR TEST!

Bonus Problems! p. 132 #10; p. 133 #30; p. 135 #67 Turn in separately on test day!

Test Half the test will be on Mon, Nov 25; the other half will be on Tue, Nov 26.

Problem Answers

- | | | |
|--|---|-------------|
| 28. 2014 N | 33. 1.62 m/s^2 | 52. 1.41 hr |
| 29. Earth: 24 kg, 235.2 N;
Planet: 24 kg, 288 N | 35. $6.5 \times 10^{23} \text{ kg}$ | 80. 1.97 hr |
| 32. 2.45 m/s^2 | 39. (a) 9.78 m/s^2 ; (b) 2.44 m/s^2 | |
| | 46. 5,973 m/s | |

Misconceptual Answers

- | | | | | | |
|------|------|------|------|-------|-------|
| 1. b | 3. c | 5. b | 7. d | 9. c | 12. d |
| 2. e | 4. d | 6. a | 8. f | 10. b | |

Name:

Date:

Period:

Reference Sheet

New Equations

$$a_C = \frac{v^2}{r}$$

$$\Sigma F_C = ma_C = \frac{mv^2}{r}$$

$$v = \frac{2\pi r}{T}$$

$$F_G = \frac{Gm_1m_2}{r^2}$$

$$G = 6.67 \times 10^{-11} \text{ Nm}^2/\text{kg}^2$$

Old Equations

$$\Sigma F = ma$$

$$F_G = mg$$

$$F_f = \mu F_N$$

Other Useful Data

Earth:	Mass	$5.98 \times 10^{24} \text{ kg}$
	Radius (mean)	$6.38 \times 10^3 \text{ km}$
Moon:	Mass	$7.35 \times 10^{22} \text{ kg}$
	Radius (mean)	$1.74 \times 10^3 \text{ km}$
Sun:	Mass	$1.99 \times 10^{30} \text{ kg}$
	Radius (mean)	$6.96 \times 10^5 \text{ km}$
Earth-Sun Distance (mean)		$1.496 \times 10^8 \text{ km}$
Earth-Moon Distance (mean)		$3.84 \times 10^5 \text{ km}$

Extra Practice

These problems are not required and are not for bonus. Work and answers are available on Schoology.

Friction	p. 132 #9
Multi Force	p. 133 #18
Universal Gravitation	p. 134 #40
Satellites	p. 134 #45