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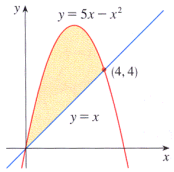
1. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_1-/Stewart5_6_1_1.pg**

Find the area of the shaded region below.



Area = _____
Answer(s) submitted:

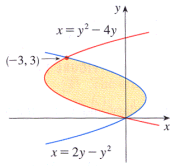
-

(incorrect)

---

2. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_4-/Stewart5_6_1_4.pg**

Find the area of the shaded region below.



Area = _____
Answer(s) submitted:

-

(incorrect)

---

3. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_5.pg**

Find the area of the region between the curves $y = x + 1$, $y = 9 - x^2$, $x = -1$, and $x = 2$.
Area between curves = _____
Answer(s) submitted:

-

(incorrect)

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4. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_7.pg**

Find the area of the region between the curves $y = x$ and $y = x^2$.
Area between curves = _____
Answer(s) submitted:

-

(incorrect)

---

5. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_8.pg**

Find the area of the region between the curves $y = x^4$ and $y = x^2$.
Area between curves = _____
Answer(s) submitted:

-

(incorrect)

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6. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_12.pg**

Find the area of the region between the curves $y = x$ and $y = \sqrt[3]{x}$.
Area between curves = _____
Answer(s) submitted:

-

(incorrect)

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7. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_13.pg**

Find the area of the region between the curves $y = 12 - x^2$ and $y = x^2 - 6$.
Area between curves = _____
Answer(s) submitted:

-

(incorrect)

---

8. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_15.pg**

Find the area of the region between the curves $y = \sqrt{x}$, $y = \frac{1}{2}x$, and $x = 9$.
Area between curves = _____
Answer(s) submitted:

-

(incorrect)

---

9. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_16.pg**

Find the area of the region between the curves $y = 8 - x^2$, $y = x^2$, $x = -3$, and $x = 3$.
Area between curves = _____
Answer(s) submitted:

-

(incorrect)

10. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_20.pg**

Find the area of the region between the curves $y = \sin(\pi x/2)$ and $y = x$.

Area between curves = _____

Answer(s) submitted:

-

(incorrect)

11. **(1 pt) Library/UCSB/Stewart5_6_1/Stewart5_6_1_22.pg**

Find the area of the region between the curves $y = \sin(x)$, $y = \sin(2x)$, $x = 0$, and $x = \pi/2$.

Area between curves = _____

Answer(s) submitted:

-

(incorrect)

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1. **(1 pt) Library/UCSB/Stewart5_5_4/Stewart5_5_4_53.pg**

The velocity function (in meters per second) for a particle moving along a line is given by

$$v(t) = 3t - 4,\ 0 \le t \le 3.$$

(a) Find the displacement (in meters) of the particle.
Displacement = _____ meters
(b) Find the total distance traveled (in meters) by the particle.
Total distance traveled = _____ meters
Answer(s) submitted:

-
-

(incorrect)

---

2. **(1 pt) Library/UCSB/Stewart5_5_4/Stewart5_5_4_54.pg**

The velocity function (in meters per second) for a particle moving along a line is given by

$$v(t) = -1(t^2 - 2t - 8),\ 1 \le t \le 6.$$

(a) Find the displacement (in meters) of the particle.
Displacement = _____ meters
(b) Find the total distance traveled (in meters) by the particle.
Total distance traveled = _____ meters
Answer(s) submitted:

-
-

(incorrect)

---

3. **(1 pt) UCR/Indiana_setIntegrals3Definite_ur_in_3_1_UCR.pg**

The velocity function is $v(t) = -t^2 + 5t - 6$ for a particle moving along a line. Find the displacement and the distance traveled by the particle during the time interval [-2,6].
displacement = _____
distance traveled = _____
Answer(s) submitted:

-
-

(incorrect)

---

4. **(1 pt) UCR/270_setDerivatives20Antideriv_c3s10p3_UCR.pg**

A ball is shot straight up into the air with initial velocity of 44 ft/sec. Assuming that the air resistance can be ignored, how high does it go?

_____

Hint: The acceleration due to gravity is -32 ft per second squared.
Answer(s) submitted:

-

(incorrect)

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5. **(1 pt) Library/270/setDerivatives20Antideriv/s3_10_67.pg**

A stone is dropped from the edge of a roof, and hits the ground with a velocity of -125 feet per second. How high (in feet) is the roof? _____
Answer(s) submitted:

-

(incorrect)

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6. **(1 pt) Library/270/setDerivatives20Antideriv/s3_10_56.pg**

A stone is thrown straight up from the edge of a roof, 900 feet above the ground, at a speed of 18 feet per second.
A. Remembering that the acceleration due to gravity is -32 feet per second squared, how high is the stone 2 seconds later? _____
B. At what time does the stone hit the ground? _____
C. What is the velocity of the stone when it hits the ground? _____
Answer(s) submitted:

-
-
-

(incorrect)

---

7. **(1 pt) Library/270/setDerivatives20Antideriv/s3_10_51.pg**

A particle is moving with acceleration $a(t) = 36t + 2$. its position at time $t = 0$ is $s(0) = 7$ and its velocity at time $t = 0$ is $v(0) = 8$. What is its position at time $t = 13$? _____
Answer(s) submitted:

-

(incorrect)

---

8. **(1 pt) Library/UCSB/Stewart5_5_4/Stewart5_5_4_55.pg**

The acceleration function (in m/s^2) and initial velocity for a particle moving along a line is given by

$$a(t) = 2t + 8,\ v(0) = 10,\ 0 \le t \le 10.$$

(a) Find the velocity (in m/s) of the particle at time t.
Velocity = _____ meters
(b) Find the total distance traveled (in meters) by the particle.
Total distance traveled = _____ meters
Answer(s) submitted:

-
-

(incorrect)

9. **(1 pt) Library/UCSB/Stewart5_5_4/Stewart5_5_4_56.pg**

The acceleration function (in m/s^2) and initial velocity for a particle moving along a line is given by

$$a(t) = -6t - 9,\ v(0) = 12,\ 0 \le t \le 3.$$

(a) Find the velocity (in m/s) of the particle at time t.

$v(t)$ = _____ m/s

(b) Find the total distance traveled (in meters) by the particle.

Total distance traveled = _____ meters

Answer(s) submitted:

-
-

(incorrect)

1. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_1.pg**

Using disks or washers, find the volume of the solid obtained by rotating the region bounded by the curves $y = x^2$, $x = 1$, and $y = 0$ about the x-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

2. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_4.pg**

Using disks or washers, find the volume of the solid obtained by rotating the region bounded by the curves $y = \sqrt{x-1}$, $y = 0$, $x = 2$, and $x = 6$ about the x-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

3. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_5.pg**

Using disks or washers, find the volume of the solid obtained by rotating the region bounded by the curves $y = x^2$, $0 \le x \le 3$, $y = 9$, and $x = 0$ about the y-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

4. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_6.pg**

Using disks or washers, find the volume of the solid obtained by rotating the region bounded by the curves $x = y - y^2$ and $x = 0$ about the y-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

5. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_7.pg**

Using disks or washers, find the volume of the solid obtained by rotating the region bounded by the curves $y = x^2$ and $y^2 = x$ about the x-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

6. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_12.pg**

Using disks or washers, find the volume of the solid obtained by rotating the region bounded by the curves $y = x^2$ and $y = 4$ about the line $y = 4$.

Volume = _____

Answer(s) submitted:

•

(incorrect)

7. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_16.pg**

Using disks or washers, find the volume of the solid obtained by rotating the region bounded by the curves $y = x$ and $y = \sqrt{x}$ about the line $x = 2$.

Volume = _____

Answer(s) submitted:

•

(incorrect)

8. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_18.pg**

Using disks or washers, find the volume of the solid obtained by rotating the region bounded by the curves $y = x$, $y = 0$, $x = 2$, and $x = 4$ about the line $x = 1$.

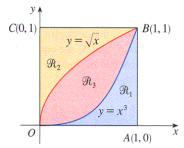
Volume = _____

Answer(s) submitted:

•

(incorrect)

9. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_20-/Stewart5_6_2_20.pg**



Referring to the figure above, find the volume generated by rotating the region $\mathcal{R}_1$ about the line OC.

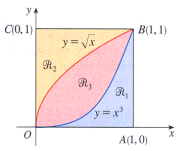
Volume = _____

Answer(s) submitted:

•

(incorrect)

10. (1 pt) **Library/UCSB/Stewart5_6_2/Stewart5_6_2_26-/Stewart5_6_2_26.pg**



Referring to the figure above, find the volume generated by rotating the region $\mathcal{R}_2$ about the line BC.

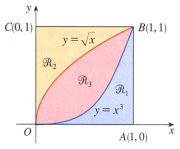
Volume = _____

Answer(s) submitted:

•

(incorrect)

11. (1 pt) **Library/UCSB/Stewart5_6_2/Stewart5_6_2_29-/Stewart5_6_2_29.pg**



Referring to the figure above, find the volume generated by rotating the region $\mathcal{R}_3$ about the line AB.

Volume = _____

Answer(s) submitted:

•

(incorrect)

12. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_32.pg**

Which of the following integrals represents the volume of the solid obtained by rotating the region bounded by the curves $y = (x-2)^4$ and $8x - y = 16$ about the line $x = 10$?

- A. $\pi \int_2^4 \left\{ \left[10 - \left(\frac{1}{8}y + 2\right)\right] - [10 - (2 + \sqrt[4]{y})] \right\}^2 dy$
- B. $\pi \int_2^4 \left\{ \left[10 - \left(\frac{1}{8}y + 2\right)^2\right] - \left[10 - (2 + \sqrt[4]{y})^2\right] \right\} dy$
- C. $\pi \int_0^{16} \left\{ \left[10 - \left(\frac{1}{8}y + 2\right)\right] - [10 - (2 + \sqrt[4]{y})] \right\}^2 dy$
- D. $\pi \int_0^{16} \left\{ \left[10 - \left(\frac{1}{8}y + 2\right)^2\right] - \left[10 - (2 + \sqrt[4]{y})^2\right] \right\} dy$
- E. $\pi \int_2^4 \left\{ \left[10 - \left(\frac{1}{8}y + 2\right)\right]^2 - [10 - (2 + \sqrt[4]{y})]^2 \right\} dy$
- F. $\pi \int_0^{16} \left\{ \left[10 - \left(\frac{1}{8}y + 2\right)\right]^2 - [10 - (2 + \sqrt[4]{y})]^2 \right\} dy$

Answer(s) submitted:

•

(incorrect)

13. **(1 pt) Library/UCSB/Stewart5_6_2/Stewart5_6_2_34.pg**

Which of the following integrals represents the volume of the solid obtained by rotating the region bounded by the curves $y = \sin(x)$ and $y = 0$, with $0 \le x \le \pi$ about the line $y = -2$?

- A. $\pi \int_{-2}^{0} [\sin(x) - 2]^2 \, dx$
- B. $\pi \int_{0}^{\pi} [\sin^2(x) + 2^2 - 2^2] \, dx$
- C. $\pi \int_{0}^{\pi} [\sin(x) - 2]^2 \, dx$
- D. $\pi \int_{-2}^{0} [(\sin(x) + 2)^2 - (2)^2] \, dx$
- E. $\pi \int_{0}^{\pi} [(\sin(x) + 2)^2 - (2)^2] \, dx$
- F. $\pi \int_{-2}^{0} [\sin^2(x) + 2^2 - 2^2] \, dx$

Answer(s) submitted:

•

(incorrect)

14. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_2.pg**

Let S be the solid obtained by rotating the region bounded by the curves $y = \sin(x^2)$ and $y = 0$, with $0 \le x \le \sqrt{\pi}$, about the y-axis. Use cylindrical shells to find the volume of S.

Volume = _____

Answer(s) submitted:

•

(incorrect)

15. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_4.pg**

Use the method of cylindrical shells to find the volume generated by rotating the region bounded by $y = x^2$, $y = 0$, and $x = 1$ about the y-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

16. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_6.pg**

Use the method of cylindrical shells to find the volume generated by rotating the region bounded by $y = 3 + 2x - x^2$ and $x + y = 3$ about the y-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

17. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_8.pg**

Let V be the volume of the solid obtained by rotating about the y-axis the region bounded by $y = \sqrt{x}$ and $y = x^2$. Find V either by slicing (the disk/ washer method) or by cylindrical shells.

Volume = _____

Answer(s) submitted:

•

(incorrect)

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18. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_10.pg**

Use the method of cylindrical shells to find the volume of the solid obtained by rotating the region bounded by the curves $x = \sqrt{y}$, $x = 0$, and $y = 1$ about the x-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

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19. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_12.pg**

Use the method of cylindrical shells to find the volume of the solid obtained by rotating the region bounded by the curves $x = 4y^2 - y^3$ and $x = 0$ about the x-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

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20. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_14.pg**

Use the method of cylindrical shells to find the volume of the solid obtained by rotating the region bounded by the curves $x + y = 3$ and $x = 4 - (y-1)^2$ about the x-axis.

Volume = _____

Answer(s) submitted:

•

(incorrect)

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21. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_19.pg**

Use the method of cylindrical shells to find the volume of the solid obtained by rotating the region bounded by the curves $y = \sqrt{x-1}$, $y = 0$, and $x = 5$ about the line $y = 3$.

Volume = _____

Answer(s) submitted:

•

(incorrect)

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22. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_20.pg**

Use the method of cylindrical shells to find the volume of the solid obtained by rotating the region bounded by the curves $y = x^2$ and $x = y^2$ about the line $y = -1$.

Volume = _____

Answer(s) submitted:

•

(incorrect)

---

23. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_22.pg**

Which of the following integrals represents the volume of the solid obtained by rotating the region bounded by the curves $y = x$ and $y = 4x - x^2$ about the line $x = 10$?

- A. $\int_0^3 2\pi(10-x)\left[(4x-x^2)-x\right]dx$
- B. $\int_0^4 2\pi(10-x)\left[x-(4x-x^2)\right]dx$
- C. $\int_0^3 2\pi(10-x)\left[x-(4x-x^2)\right]dx$
- D. $\int_0^4 2\pi(x-10)\left[(4x-x^2)-x\right]dx$
- E. $\int_0^3 2\pi(x-10)\left[(4x-x^2)-x\right]dx$
- F. $\int_0^4 2\pi(10-x)\left[(4x-x^2)-x\right]dx$

Answer(s) submitted:

•

(incorrect)

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24. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_23.pg**

Which of the following integrals represents the volume of the solid obtained by rotating the region bounded by the curves $y = x^4$ and $y = \sin(\frac{\pi x}{2})$ about the line $x = -2$?

- A. $\int_0^1 2\pi(2-x)\left(\sin\left(\frac{\pi x}{2}\right)-x^4\right)dx$
- B. $\int_0^1 2\pi(x+2)\left(x^4-\sin\left(\frac{\pi x}{2}\right)\right)dx$
- C. $\int_0^1 2\pi(x-2)\left(x^4-\sin\left(\frac{\pi x}{2}\right)\right)dx$
- D. $\int_0^1 2\pi(x-2)\left(\sin\left(\frac{\pi x}{2}\right)-x^4\right)dx$
- E. $\int_0^1 2\pi(x+2)\left(\sin\left(\frac{\pi x}{2}\right)-x^4\right)dx$
- F. $\int_0^1 2\pi(2-x)\left(x^4-\sin\left(\frac{\pi x}{2}\right)\right)dx$

Answer(s) submitted:

•

(incorrect)

25. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_24.pg**

Which of the following integrals represents the volume of the solid obtained by rotating the region bounded by the curves $y = 1/(1+x^2)$, $y = 0$, $x = 0$, and $x = 7$ about the line $x = 7$?

- A. $\int_0^7 2\pi(7-x)\left(\frac{7}{1+x^2}\right)dx$
- B. $\int_0^7 2\pi(7+x)\left(\frac{7}{1+x^2}\right)dx$
- C. $\int_0^7 2\pi(7-x)\left(\frac{1}{1+x^2}\right)dx$
- D. $\int_0^7 2\pi(7+x)\left(\frac{1}{1+x^2}\right)dx$
- E. $\int_0^7 2\pi(x-7)\left(\frac{7}{1+x^2}\right)dx$
- F. $\int_0^7 2\pi(x-7)\left(\frac{1}{1+x^2}\right)dx$

Answer(s) submitted:

•

(incorrect)

26. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_38.pg**

The region bounded by $y = x^2 - 3x + 2$ and $y = 0$ is rotated about the y-axis. Find the volume of the resulting solid by any method.

Volume = _____

Answer(s) submitted:

•

(incorrect)

27. **(1 pt) Library/UCSB/Stewart5_6_3/Stewart5_6_3_40.pg**

The region bounded by $x = 1 - y^4$ and $x = 0$ is rotated about the line $x = 2$. Find the volume of the resulting solid by any method.

Volume = _____

Answer(s) submitted:

•

(incorrect)

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1. **(1 pt) Library/Utah/AP_Calculus_I/set12_Further_Techniques_and_Applications_of_Integration/q3.pg**

The average value of $\sin x$ in the interval $[0,\pi]$ is _____.

Answer(s) submitted:

-

(incorrect)

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2. **(1 pt) Library/ma122DB/set13/s6_5_1.pg**

Find the average value of $f(x) = x^3$ on the interval $[3,5]$.

Answer: _____

Answer(s) submitted:

-

(incorrect)

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3. **(1 pt) Library/UCSB/Stewart5_6_5/Stewart5_6_5_1.pg**

Find the average value of the function $f(x) = 6x^2$ on the interval [-1, 1].

$f_{ave} =$ _____

Answer(s) submitted:

-

(incorrect)

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4. **(1 pt) Library/ma122DB/set13/s6_5_3.pg**

Find the average value of $f(x) = \cos(14x)$ on the interval $[0,\pi/2]$.

Answer: _____

Answer(s) submitted:

-

(incorrect)

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5. **(1 pt) Library/UVA-Stew5e/setUVA-Stew5e-C06S05-AveValue/6-5-06.pg**

Find the average value of : $f(x) = 8\sin x + 3\cos x$
on the interval $[0, 19\pi/6]$

Average value = _____

Answer(s) submitted:

-

(incorrect)

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6. **(1 pt) Library/UCSB/Stewart5_6_5/Stewart5_6_5_3.pg**

Find the average value of the function $g(x) = 3\cos(x)$ on the interval $[0,\pi/2]$.

$g_{ave} =$ _____

Answer(s) submitted:

-

(incorrect)

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7. **(1 pt) Library/UCSB/Stewart5_6_5/Stewart5_6_5_4.pg**

Find the average value of the function $g(x) = 2x^2\sqrt{1+x^3}$ on the interval [0, 2].

$g_{ave} =$ _____

Answer(s) submitted:

-

(incorrect)

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8. **(1 pt) Library/UCSB/Stewart5_6_5/Stewart5_6_5_6.pg**

Find the average value of the function $f(t) = -9\sec(t)\tan(t)$ on the interval $[0,\pi/4]$.

$f_{ave} =$ _____

Answer(s) submitted:

-

(incorrect)

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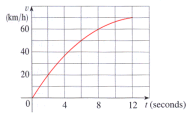
9. **(1 pt) Library/UCSB/Stewart5_6_5/Stewart5_6_5_16-/Stewart5_6_5_16.pg**

The velocity of an accelerating car is shown in the graph below.



(a) Estimate the average velocity of the car during the first 12 seconds.

Average velocity ≈ _____ km/h

(b) At approximately what time was the instantaneous velocity equal to the average velocity? Give your estimate to the nearest half-second.

Time ≈ _____ seconds

Answer(s) submitted:

-
-

(incorrect)

10. **(1 pt) Library/UVA-Stew5e/setUVA-Stew5e-C06S05-AveValue/6-5-02.pg**

A car drives down a road in such a way that its velocity (in m/s) at time t (seconds) is

$$v(t) = 2t^{1/2} + 2$$

.

Find the car's average velocity (in m/s) between $t = 5$ and $t = 10$.

Answer(s) submitted:

•

(incorrect)

1. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_1.pg**

Find the work done (in Joules) in pushing a car a distance of 8 meters while exerting a constant force of 900 N.

Work done = _____ Joules

Answer(s) submitted:

•

(incorrect)

2. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_2.pg**

How much work is done (in Joules) by a weightlifter in raising a 60-kg barbell from the floor to a height of 2 m?

Work done = _____ Joules

Answer(s) submitted:

•

(incorrect)

3. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_4.pg**

When a particle is located at a distance x meters from the origin, a force of $\cos(\pi x/3)$ newtons acts on it.

(a) How much work (in Joules) is done in moving the particle from $x = 1$ to $x = 1.5$?

Work done = _____ J

(b) How much work (in Joules) is done in moving the particle from $x = 1.5$ to $x = 2$?

Work done = _____ J

(c) How much work (in Joules) is done in moving the particle from $x = 1$ to $x = 2$?

Work done = _____ J

Answer(s) submitted:

•
•
•

(incorrect)

4. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_8.pg**

A spring has a natural length of 20 cm. If a 25-N force is required to keep it stretched to a length of 30 cm, how much work (in J) is required to stretch it from 20 cm to 25 cm?

Work done = _____ J

Answer(s) submitted:

•

(incorrect)

5. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_10.pg**

If the work required to stretch a spring 1 ft beyond its natural length is 12 ft-lb, how much work (in ft-lb) is needed to stretch it 9 in. beyond its natural length?

Work done = _____ ft-lb

Answer(s) submitted:

•

(incorrect)

6. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_14.pg**

A chain lying on the ground is 10 m long and its mass is 80 kg. How much work (in J) is required to raise one end of the chain to a height of 6 m?

Work done = _____ J

Answer(s) submitted:

•

(incorrect)

7. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_15.pg**

A cable that weighs 2 lb/ft is used to lift 800 lb of coal up a mineshaft 500 ft deep. Find the work done (in ft-lb).

Work done = _____ ft-lb

Answer(s) submitted:

•

(incorrect)

8. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_16.pg**

A bucket that weighs 4 lb and a rope of negligible weight are used to draw water from a well that is 80 ft deep. The bucket starts with 40 lb of water and is pulled up at a rate of 2 ft/s, but water leaks out of a hole in the bucket at a rate of 0.2 lb/s. Find the work done (in ft-lb) in pulling the bucket to the top of the well.

Work done = _____ ft-lb

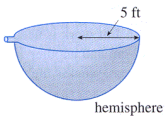
Answer(s) submitted:

•

(incorrect)

9. **(1 pt) Library/UCSB/Stewart5_6_4/Stewart5_6_4_24-/Stewart5_6_4_24.pg**

The tank shown below is full of water. Using the fact that the weight of water is 62.5 lb/ft^3, find the work (in ft-lbs) required to pump the water out of the outlet. Make sure your answer is correct to within ten ft-lbs.



Work = _____ ft-lbs

Answer(s) submitted:

-

(incorrect)