

Question **1**

Not yet
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Points out of
8.75

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question

Simplify by writing the expression without absolute value bars.

$|1|$

Select one:

- a. 1
- b. -1

Question **2**

Not yet
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Solve the problem.

if $n > 0$, then $9n - |9n| =$

Select one:

- a. $9n$
- b. n
- c. 1
- d. 0

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Solve the problem.

A tool rental store charges a flat fee of \$8.50 to rent a chain saw, and \$4.00 for each day, including the first. Use a linear equation to find the cost of renting the saw for one week.

Select one:

- a. \$32.50
- b. \$12.50
- c. \$36.50
- d. \$28.00

Topic 2: Basic Algebraic Operations

Evaluate the expression for the given values of the variables.

Under selected conditions, a sports car gets 14 mpg in city driving and 19 mpg for highway driving. The model $G = \frac{1}{14}c + \frac{1}{19}h$ represents the amount of gasoline used (in gal) for c miles driven in the city and h miles driven on the highway. Determine the amount of gas required to drive 98 mi in the city and 399 mi on the highway.

Select one:

- a. 34 gal
- b. 33 gal
- c. 28 gal
- d. 37 gal

Question **6**

Not yet
answered

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8.75

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question

Simplify the expression. Write your answer with positive exponents only.

$$(t^3z)^2(3t^2z^4)^{-2}$$

Select one:

- a. $\frac{t^{10}}{9z^6}$
- b. $\frac{z^7t}{9}$
- c. $\frac{9z^{10}}{t}$
- d. $\frac{1}{81t^4z^{20}}$

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Question **5**

Not yet
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Simplify the expression. Write your answer with positive exponents only.

$$\frac{z^2y^3}{y^{-3}z^6}$$

Select one:

- a. $\frac{y^6}{z^4}$
- b. $\frac{1}{z^4}$
- c. $\frac{1}{z^4y^6}$
- d. z^4y^3

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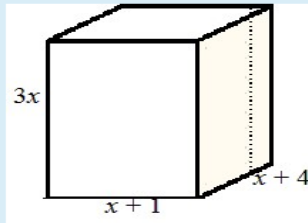
Question 12

Not yet answered

Points out of 8.75

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Write an expression for the volume and simplify your answer.



Select one:

- a. $3x^3 + 15x + 12$
- b. $x^3 + 5x^2 + 4x$
- c. $3x^3 + 12x$
- d. $3x^3 + 15x^2 + 12x$

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Finish attempt ...

Time left 1:25:03

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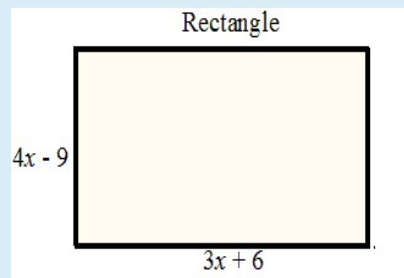
Question 13

Not yet answered

Points out of 8.75

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Write an expression for the area and simplify your answer.



[The figure is not necessarily drawn to scale.]

Select one:

- a. $12x^2 + 51x - 54$
- b. $12x^2 - 3x - 54$
- c. $12x^2 + 3x - 54$
- d. $12x^2 - 54$

Question **14**

Not yet
answered

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8.75

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question

Factor out the indicated quantity.

$-40q^4r + 56q^3r - 24q^2r$: Factor out the quantity $-8q^2r$

Select one:

- a. $-8q^2r(5q^3 - 7q^2 + 3)$
- b. $-8q^2r(-5q^2 + 7q - 3)$
- c. $-8q^2r(-5q^2 - 7q + 3)$
- d. $-8q^2r(5q^2 - 7q + 3)$

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Question **16**

Not yet
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Factor the sum or difference of cubes.

$125r^3 + 8$

Select one:

- a. $(5r + 2)^2(5r - 2)$
- b. $(5r - 2)(25r^2 + 10r + 4)$
- c. $(5r + 2)(25r^2 - 20r + 4)$
- d. $(5r + 2)(25r^2 - 10r + 4)$

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Question 17

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question

Simply the expression. Assume that all variable expressions represent positive real numbers.

$$\frac{18}{\sqrt{13x}} + \frac{\sqrt{13x}}{x}$$

Select one:

- a. $\frac{31\sqrt{13x}}{26x}$
- b. $\frac{234\sqrt{13x}}{13x}$
- c. $\frac{234\sqrt{13x}}{26x}$
- d. $\frac{31\sqrt{13x}}{13x}$

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Question **18**Not yet
answeredPoints out of
8.75Flag
question**Simplify the rational expression.**

$$\frac{y^2+5y-36}{y^2-16}$$

Select one:

- a. $\frac{y+9}{y+4}$ (Provided $y \neq 4$)
- b. $\frac{y+9}{y-4}$ (Provided $y \neq -4$)
- c. $\frac{5y-36}{16}$ (Provided $y \neq -4$)
- d. $\frac{y^2+5y-36}{y^2-16}$; cannot be simplified

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Question 19

Not yet answered

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Simplify the complex fraction.

$$\frac{t+3t^{-2}}{5-2t^{-1}}$$

Select one:

- a. $\frac{t^3+3}{5t^3-2t^2}$
- b. $\frac{5-2t^2}{4t}$
- c. $\frac{4t}{5-2t^2}$
- d. $\frac{t^3+3}{5t^2-2t}$

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Question 20

Not yet answered

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Rationalize the denominator.

$$\frac{-13}{\sqrt{x}}$$

Select one:

- a. $\frac{-13\sqrt{x}}{x}$
- b. $\frac{x\sqrt{x}}{-13}$
- c. $\frac{169}{x}$
- d. Already rationalized.

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Quiz navigation

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Finish attempt ...

Time left 1:22:29