

Name: Answer Key Class: \_\_\_\_\_ Date: \_\_\_\_\_

State Exam Review 3 - Show all work and circle the correct answer.

- 1) Mike took a taxi from his home to the airport. The taxi driver charged an initial fee of \$6 plus \$3 per mile. The total fare was \$24, not including the tip. How many miles did Mike travel by taxi on this ride?

A 2

B 6

C 8

D 10

$$24 = 6 + 3x$$

$$18 = 3x$$

$$6 = x$$

- 2) What is the value of the expression?

$$\frac{8}{15} \div (-0.35)$$

A  $-\frac{75}{14}$

B  $-\frac{32}{21}$

C  $-\frac{21}{32}$

D  $-\frac{14}{75}$

- 3) Three friends own a landscaping business. The number of hours each friend spent on the same project is shown in the table below.

**HOURS WORKED ON  
LANDSCAPING PROJECT**

Name	Hours Worked
Edgar	$17\frac{1}{4}$
Kelly	$18\frac{1}{4}$
Shawn	$14\frac{1}{2}$

In total, they earned \$850 for the job. They put 15% of this amount into a joint savings account for future expenses. They then divided the rest proportionally based on the number of hours each worked. How much money did Shawn receive?

A \$209.53

B \$240.83

C \$283.48

D \$295.11

- 4) A clothing store used the sign shown below to advertise a discount on shirts.

<b>DISCOUNT</b> Buy Two Shirts Get 50% Off Third Shirt
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Ky wants to buy three shirts, which were originally priced \$49.96 each. The store will discount the price of the third shirt and then apply a 7.1% tax to the total cost of all three shirts. Including the tax, what will be the mean cost of each shirt?

- A \$41.99
- B \$42.70
- C \$44.59**
- D \$45.18

- 5) What is the solution of the equation below?

$$4(x + 5) = x + 8$$

**Show your work.**

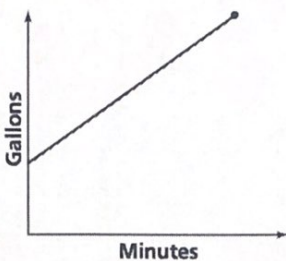
$$\begin{aligned}
 4x + 20 &= x + 8 \\
 3x &= -12 \\
 x &= -4
 \end{aligned}$$

Check to see if your answer is correct.

**Show your work.**

$$\begin{aligned}
 4(-4 + 5) & \qquad -4 + 8 \\
 4(1) & \\
 4 & \qquad \qquad \qquad 4 \\
 & \swarrow \quad \searrow \\
 & \text{They are equal}
 \end{aligned}$$

- 6) On the lines below, describe a situation that could be represented by the graph shown below.



As minutes pass, gallons used increases

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On the lines below, explain the reason the graph does not pass through the origin in the situation you described.

The person already used gallons when they started

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- 7) Simplify the expression below.

$$(3x^2 + 4x - 3) - 1(2x - 1)$$

**Show your work.**

$$3x^2 + 4x - 3 - 2x + 1$$

$$3x^2 + 2x - 2$$