Name: _____ Class: _____ Date: _____ ID: A

Unit 2 Test - REVIEW

Solve each equation. If the equation is an identity, write Infinitely Many Solutions. If there is no solution, write No Solution.

1 $\frac{1}{4}(c-5)=c+4$ **(c = -7)**

2 $-13=\frac{2}{3}y+3$ **(y = -24)**

3 $8x-14=10(x-3)-2(x+12)$ **(No Solution)**

4 $\frac{6m-4}{8}=\frac{3m+2}{5}$ **(m = 6)**

The figures are similar. Find the missing length.

5 A tree casts a 72-ft shadow. A boy standing nearby casts a 15-ft shadow, forming similar triangles. His height is 5 ft. How tall is the tree?

(x = 24 ft)

Convert the given amont to the given unit. Round to the nearest tenth if necessary.

6 14.9 mi/gal = _____ km/L **(6.3 km/L)**

Find each percent, part, or base.

7 What percent of 72 is 18? **(p = 25%)**

8 15% of what number is 30? **(200)**

9 What number is 62% of 120? **(74.4)**

Tell whether each percent of change is an increase or decrease. Then find the percent of change.

10 Original Amount: $120.00
New Amount: $85.00
(Decrease, 29.2%)

Write and solve an equation.

11 The height of a building is 120 feet. A model was created with a height of 8 inches. What scale was used to make the model?

$(\frac{1\,in}{15\,ft})$

Solve each equation for x.

12 $ax - x = b$ $(x = \frac{b}{a-1})$

Unit 2 Test - REVIEW
Answer Section

1. $c = -7$
2. $y = -24$
3. *NO SOLUTION*
4. $m = 6$
5. 24 *ft*
6. 6.3 km/L
7. 25%
8. 200
9. 74.4
10. 29.2% Decrease
11. 1 in : 15 feet
12. $x = \frac{b}{a-1}$