

Algebra 1

Practice Quiz 2.5-2.7

NAME _____

Evaluate each expression if $a = 3$ and $b = -2$. (2 Points)

1. $|a - 5| + 3$

$$|3 - 5| + 3$$

$$2 + 3 = 5$$

2. $|b - 5| - 6$

$$|-2 - 5| - 6$$

$$7 - 6 = 1$$

1. _____

2. _____

Solve each equation. Then graph the solution set. (2 Points)

3. $|x - 3| = 8$

$$x - 3 = 8 \quad x - 3 = -8$$

$$x = 11 \quad x = -5$$



4. $|x + 6| = 7$

$$x + 6 = 7 \quad x + 6 = -7$$

$$x = 1 \quad x = -13$$



3. _____

←

4. _____

←

5. $|x + 9| = 12$

$$x + 9 = 12 \quad x + 9 = -12$$

$$x = 3 \quad x = -21$$



6. $|x - 4| = 13$

$$x - 4 = 13 \quad x - 4 = -13$$

$$x = 17 \quad x = -9$$



5. _____

←

6. _____

←

7. _____

8. _____

Determine whether each pair of ratios are equivalent ratios. Write *yes* or *no*. (2 Points)

7. ~~$\frac{5}{8} = \frac{25}{40}$~~

$$200 = 200$$

Yes

8. ~~$\frac{7}{10} = \frac{51}{64}$~~

$$448 \neq 510$$

No

Points(16) _____

Solve each proportion. (2 Points)

9. $\frac{3}{x} = \frac{4}{12}$

$36 = 4x$

$9 = x$

10. $\frac{6}{3} = \frac{14}{x}$

$6x = 42$

$x = 7$

11. $\frac{x}{16} = \frac{6}{4}$

$4x = 96$

$x = 24$

12. $\frac{5}{3} = \frac{x}{12}$

$60 = 3x$

$20 = x$

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

State whether each percent of change is a percent of *increase* or *decrease*. Then find each percent of change. (2 Points)

13. original: 32
new: 24

$\frac{8}{32} = .25$ 25% Dec.

14. original: 48
new: 55

$\frac{7}{48} = .146$
14.6% Inc

Find the total price of each item. (2 Points)

15. clothes: \$95
tax: 6%

95
 $\times 1.06$
\$100.70

16. books: \$51
tax: 5%

51
 $\times 1.05$
\$53.55

Find the discounted price of each item. (2 Points)

17. x-box game: \$120
discount: 20%

120
 $\times .80$
\$96.00

18. radio: \$89
discount: 25%

89
 $\times .75$
\$66.75

Points (20) _____