

_____ 5. (10 points) Add $\frac{x+6}{x-7} + \frac{-12x-59}{x^2-3x-28}$.

A) $\frac{-11x-53}{x^2-2x-35}$

C) $\frac{x+6}{(x-7)(x+4)}$

B) $\frac{x^2+10x+24}{(x+4)(x-7)}$

D) $\frac{x+5}{x+4}$

_____ 6. (10 points) Subtract $\frac{2x^2-48}{x^2-16} - \frac{x+6}{x+4}$. Identify any x -values for which the expression is undefined.

A) $\frac{x-6}{x-4}$

The expression is undefined at $x = 4$ and $x = -4$.

B) $\frac{x^2+2x-72}{(x-4)(x+4)}$

The expression is undefined at $x = 4$ and $x = -4$.

C) $\frac{x+6}{x-4}$

The expression is undefined at $x = 4$ and $x = -4$.

D) $\frac{x-6}{x+4}$

The expression is undefined at $x = 4$ and $x = -4$.

_____ 7. (10 points) Simplify $\frac{\frac{-5}{x-4} + \frac{x-6}{10}}{\frac{x+3}{x-4}}$. Assume that all expressions are defined.

A) $\frac{x-56}{10(x+3)}$

C) $\frac{x^2-10x-26}{10(x+3)}$

B) $\frac{x^2-10x-26}{10(x^2-x-12)}$

D) $\frac{x^3-14x^2+14x+104}{10(x^2-x-12)}$

- 8.** (10 points) Michaela climbed up a mountain at an average speed of 3 mi/h. She climbed down at an average speed of 5 mi/h. What is Michaela's average speed for the entire trip? Round to the nearest tenth.
- A) 3.8 mi/h C) 1.9 mi/h
B) 4.0 mi/h D) 3.9 mi/h

- _____ 9. (10 points) Simplify $\frac{2-x^2+x}{x^2+x-6}$. (Remember...factor top and bottom first!!) Show all your work!

A) $\frac{-x-1}{x+3}$

The expression is undefined at $x = -3$.

B) $\frac{-x-1}{x+3}$

The expression is undefined at $x = 2$ and $x = -3$.

C) $\frac{x+1}{x+3}$

The expression is undefined at $x = 2$ and $x = -3$.

D) $\frac{x+1}{x+3}$

The expression is undefined at $x = -3$.

- _____ 10. (10 points) Divide $\frac{5x^5}{6x^4y} \div \frac{25}{6y^7}$. Show all your work!

A) $\frac{xy^6}{5}$

C) $\frac{x}{5y^6}$

B) $\frac{125x}{36y^8}$

D) $\frac{5}{xy^6}$

- _____ 11. (10 points) Solve $\frac{x^2 - 6x + 8}{x - 2} = -2$. (Remember...factor first!!) Show all your work!

A) $x = 2$

B) $x = 0$

C) $x = 4$

D) There is no solution because the original equation is undefined at $x = 2$.

ID: A

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Algebra II Practice Quiz 8.2 - 8.3

Answer Section

MULTIPLE CHOICE

- | | | |
|------------|---------|---------------|
| 1. ANS: A | PTS: 10 | REF: Page 577 |
| 2. ANS: C | PTS: 10 | REF: Page 578 |
| 3. ANS: D | PTS: 10 | REF: Page 583 |
| 4. ANS: B | PTS: 10 | REF: Page 584 |
| 5. ANS: D | PTS: 10 | REF: Page 584 |
| 6. ANS: A | PTS: 10 | REF: Page 585 |
| 7. ANS: C | PTS: 10 | REF: Page 586 |
| 8. ANS: A | PTS: 10 | REF: Page 587 |
| 9. ANS: B | PTS: 10 | REF: Page 578 |
| 10. ANS: A | PTS: 10 | REF: Page 579 |
| 11. ANS: D | PTS: 10 | REF: Page 579 |
| 12. ANS: B | PTS: 10 | |