FMA 11 Review Day 1 Booklet

Multiple Choice
Identify the choice that best completes the statement or answers the question.

1. What is \( \frac{20}{27} + \frac{5}{9} \)?
   a. \( \frac{3}{2} \)   b. \( \frac{4}{3} \)   c. \( \frac{3}{4} \)   d. \( \frac{2}{3} \)

2. Evaluate \( \frac{4}{9} + \frac{1}{6} \times \frac{2}{3} \)
   a. \( \frac{5}{9} \)   b. \( \frac{11}{18} \)   c. \( \frac{7}{9} \)   d. \( \frac{5}{6} \)

3. What is \( \left( \frac{6}{7} - \frac{1}{2} \right) \times \frac{14}{15} \)?
   a. \( \frac{1}{3} \)   b. \( \frac{3}{5} \)   c. \( \frac{14}{15} \)   d. \( \frac{45}{15} \)

4. What is the result of \( \frac{1}{9} + \frac{1}{4} + \frac{7}{12} \)?
   a. \( \frac{17}{18} \)   b. \( \frac{11}{12} \)   c. \( \frac{8}{9} \)   d. \( \frac{31}{36} \)

5. What is \( \frac{2}{5} \times \left( \frac{2}{3} + \frac{1}{8} \right) + \frac{8}{15} \)?
   a. \( \frac{15}{52} \)   b. \( \frac{23}{50} \)   c. \( \frac{19}{32} \)   d. \( \frac{29}{40} \)

6. What is the value of \( t \) if \( 1.3 \times t = 3.25 \)?
   a. \( t = 0.25 \)   b. \( t = 0.4 \)   c. \( t = 2.5 \)   d. \( t = 4.225 \)
7. Solve \( \frac{10.85}{a} = 3.5 \).
   a. \( a = 0.31 \)   b. \( a = 0.323 \)   c. \( a = 3.1 \)   d. \( a = 37.975 \)

8. Solve the following: \( 5s + 4 = 22 \).
   a. \( s = 2.4 \)   b. \( s = 3.6 \)   c. \( s = 18 \)   d. \( s = 22 \)

9. Solve \( 6.4 + \frac{7d}{2.5} = 14.88 \).
   a. \( d = 2.8 \)   b. \( d = 3.0 \)   c. \( d = 9.2 \)   d. \( d = 21.28 \)

10. What is the value of \( h \) if \( 6.3(5.1h + 2.7) = 38.43 \)?
    a. \( h = 1.28 \)   b. \( h = 0.67 \)   c. \( h = 1.11 \)   d. \( h = 1.73 \)

11. Solve for \( w \) in \( \frac{2w}{3} = 12 + \frac{2w}{7} \).
    a. \( w = 3 \)   b. \( w = 4.5 \)   c. \( w = 31.5 \)   d. \( w = 252 \)

12. Solve the following: \( 3x - 3.2 = 5.3 - 2x \)
    a. \( x = 1.7 \)   b. \( x = 8.5 \)   c. \( x = 0.42 \)   d. \( x = 5 \)

13. Solve \( 4(6x - 2) = 2(3x + 5) \)
    a. \( x = 0.11 \)   b. \( x = 1 \)   c. \( x = 0.6 \)   d. \( x = 0.4 \)

14. Therese wants to start her solution to the equation shown by using multiplication. To do this, she should
    \( \frac{2x}{4} = \frac{8}{5} \)
    a. multiply both sides by 2   b. multiply both sides by 4   c. multiply the left side by 4 and the right side by 5   d. multiply the left side by 8 and the right side by 2
MULTIPLE CHOICE

1. ANS: B PTS: 1 DIF: Average OBJ: Section 2.3
   NAT: N3 TOP: Problem Solving With Rational Numbers in Fraction Form
   KEY: rational numbers | fraction operations | divide

2. ANS: A PTS: 1 DIF: Difficult OBJ: Section 2.3
   NAT: N3 | N4 TOP: Problem Solving With Rational Numbers in Fraction Form
   KEY: rational numbers | fraction operations | order of operations | add | multiply

3. ANS: A PTS: 1 DIF: Difficult OBJ: Section 2.3
   NAT: N3 | N4 TOP: Problem Solving With Rational Numbers in Fraction Form
   KEY: rational numbers | fraction operations | order of operations | subtract | multiply

4. ANS: A PTS: 1 DIF: Difficult OBJ: Section 2.3
   NAT: N3 | N4 TOP: Problem Solving With Rational Numbers in Fraction Form
   KEY: rational numbers | fractions | order of operations | add

5. ANS: C PTS: 1 DIF: Difficult+ OBJ: Section 2.3
   NAT: N3 | N4 TOP: Problem Solving With Rational Numbers in Fraction Form
   KEY: rational numbers | fractions | order of operations | add | multiply | divide

6. ANS: C PTS: 1 DIF: Easy OBJ: Section 8.1
   NAT: PR3 TOP: Solving Equations: ax = b, x/a = b, a/x = b
   KEY: one-step equation | division

7. ANS: C PTS: 1 DIF: Difficult OBJ: Section 8.1
   NAT: PR3 TOP: Solving Equations: ax = b, x/a = b, a/x = b
   KEY: multi-step equation | multiplication | division

8. ANS: B PTS: 1 DIF: Easy OBJ: Section 8.2
   NAT: PR3 TOP: Solving Equations: ax + b = c, x/a + b = c
   KEY: multi-step equation | subtraction | division

9. ANS: B PTS: 1 DIF: Difficult OBJ: Section 8.2
   NAT: PR3 TOP: Solving Equations: ax + b = c, x/a + b = c
   KEY: multi-step equation | subtraction | multiplication | division

10. ANS: B PTS: 1 DIF: Difficult OBJ: Section 8.3
    NAT: PR3 TOP: Solving Equations: ax = b + cx, ax + b = cx + d, a(bx + c) = d(ex + f)
    KEY: multi-step equation | division | multiplication | subtraction | grouping symbol | distributive property

11. ANS: C PTS: 1 DIF: Average OBJ: Section 8.4
    NAT: PR3 TOP: Solving Equations: ax = b + cx, ax + b = cx + d, a(bx + c) = d(ex + f)
    KEY: multi-step equation | subtraction | multiplication | division

12. ANS: A PTS: 1 DIF: Difficult OBJ: Section 8.4
    NAT: PR3 TOP: Solving Equations: ax = b + cx, ax + b = cx + d, a(bx + c) = d(ex + f)
    KEY: multi-step equation | addition | multiplication | division

13. ANS: B PTS: 1 DIF: Average OBJ: Section 8.4
    NAT: PR3 TOP: Solving Equations: ax = b + cx, ax + b = cx + d, a(bx + c) = d(ex + f)
    KEY: multi-step equation | addition | subtraction | division | multiplication | distributive property

14. ANS: B PTS: 1 DIF: Average OBJ: Section 8.1
    NAT: PR3 TOP: Solving Equations: ax = b, x/a = b, a/x = b
    KEY: multi-step equation | multiplication | division