1. What is \( \left( \frac{4}{5} \right) \left( \frac{5}{10} \right) \)?
   (a) 4/5
   (b) 14/10
   (c) 9/15
   (d) 2/5
   (e) 40/25

2. Solve for \( x \): \( x - y = 5x + 2 \)
   (a) \(-y + \frac{1}{2}\)
   (b) \(\frac{4}{y} + 2\)
   (c) \((5x + 2) + y\)
   (d) \(-\frac{1}{4}(y + 2)\)
   (e) \(-\frac{y}{5x + 2}\)

3. If you've traveled at an average speed of 68 mph and gone for 88 miles, how long was your trip?
   (a) 0.77 hrs
   (b) 1.2 hrs
   (c) 1.3 hrs
   (d) 5.9 hrs
   (e) 20 hrs

4. Solve for \( k \): \( 3k + 17 = \frac{1}{2}(k + 2) - 8 \)
   (a) -9.60
   (b) -6.67
   (c) -6.57
   (d) 6.57
   (e) 9.60

5. In the right-angled triangle shown, which of the following is true? There may be more than one correct answer, but choose only one

6. If a sphere has a radius of 0.50 m, then the surface area of the sphere is
   (a) 6.28 m²
   (b) 0.32 m²
   (c) 12.6 m²
   (d) 3.14 m²
   (e) 0.16 m²

7. \( z^3z^{-4} \) is the same as
   (a) \( \frac{1}{z} \)
   (b) \( z \)
   (c) \( z^{3/4} \)
   (d) \( z^{-12} \)
   (e) \( z^{12} \)

8. Solve for \( t \): \( 4t^2 - 8t = 2 \)
   (a) \( \frac{2 \pm \sqrt{-6}}{2} \)
   (b) \( \frac{\sqrt{2} \pm 6}{2} \)
   (c) \( 1 \pm \frac{\sqrt{6}}{2} \)
   (d) \( \sqrt{\frac{2 \pm \sqrt{6}}{2}} \)
   (e) \( 3 \pm \frac{\sqrt{6}}{2} \)

9. If Alice is half as heavy as Bob, and Bob is three times heavier than his dog, we can conclude that:
   (a) Alice is 0.67 times the weight of the dog
   (b) Alice is 1.5 times the weight of the dog
   (c) Alice is 6 times the weight of the dog
   (d) Alice is 0.16 times the weight of the dog
   (e) There is not enough information to determine a relationship between Alice’s weight and the dog’s.

10. Solve the indefinite integral \( \int u(t) \, dt \), where \( u(t) = u_o + at \) given \( u_o, a \) and \( x_o \) are all constants:
    (a) \( at \)
    (b) \( u_o t + \frac{1}{2} at^2 \)
    (c) \( a \)
    (d) \( x_o \)
    (e) \( x_o + u_o t + \frac{1}{2} at^2 \)