1. A mass is 3.6 kg to 1 d.p. What is its lower bound?

   _____ kg

2. Convert 54 km/h to m/s.

   _____ m/s

3. A time is 40 s to the nearest 10 s. What are its bounds?

   ☐ $30 \leq t < 50$

   ☐ $39.5 \leq t < 40.5$

   ☐ $39 \leq t < 41$

   ☐ $35 \leq t < 45$

4. Which is equal to 1 newton?

   ☐ 1 g m/s^2

   ☐ 1 kg m/s^2

   ☐ 1 kg m/s

   ☐ 1 kg/m^2

5. A rectangle is 5 cm by 3 cm, each to the nearest cm. Find the upper bound of its area.

   _____ cm^2

6. A 500 g ball goes from rest to 36 km/h in 2 s. Find the resultant force.

   _____ N

7. A car travels 200 m (nearest 10 m) in 8 s (nearest second). Find the lower bound of its speed to 3 s.f.

   _____ m/s

8. An astronaut has a smaller mass on the Moon than on Earth.

   ☐ True ☐ False

9. The upper bound of $\frac{a}{b}$ is upper bound of a divided by upper bound of b.

   ☐ True ☐ False

10. Find the weight of a 2.5 kg bag ($g = 9.8$).

    _____ N

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1. **3.55 kg**

   Half of 0.1 below.

2. **15 m/s**

   $54\,000 \div 3600$.

3. $35 \leq t < 45$

   Half of 10 either side.

4. **1 kg m/s^2**

   $F = ma$.

5. **19.25 cm^2**

   5.5×3.5.

6. **2.5 N**

   $v = 10$ m/s, $a = 5$ m/s^2, $F = 0.5 \times 5$.

7. **22.9 m/s**

   $\frac{195}{8.5} = 22.94$.

8. **False**

   Mass is unchanged; weight changes with g.

9. **False**

   Divide by the lower bound of b.

10. **24.5 N**

    $W = mg$.