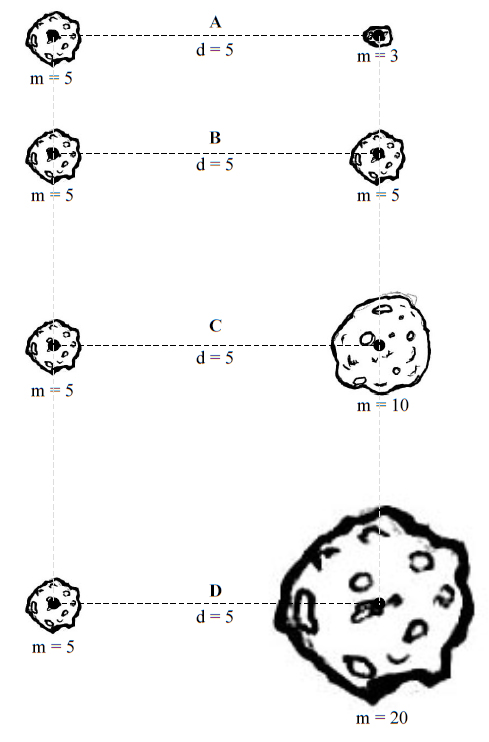
Physics 3rd qtr. Formative Assessment Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The figure below shows four pairs of rocky asteroids with masses (m) separated by a distance (d). Apply your understanding of Newton’s Universal Law of Gravity to answer questions 1-3.**

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1) Rank (*from least to greatest*) the strength of the gravitational force exerted on the asteroid located on the left side of each of the four pairs of asteroids (A - D).

a. A,B,C,D b. D,C,B,A c. They are all equal d. Not enough information to determine

2) Which asteroid in pair D would experiences a stronger gravitational force of attraction?

a. Left side (m=5) b. Right side (m=20) c. Both experience the same force

3) Which asteroid in pair D would undergo a greater acceleration due to the force of gravity?

a. Left side (m=5) b. Right side (m=20) c. Both experience the same acceleration