Pascal's Principle Worksheet

365
MrG
Mr. Gunkelman

Name _____

1. A hydraulic jack lifts 123 N on its large piston with an area of 60 cm^2. How much force must be exerted on the small piston if it has an area of 12 cm^2?
   Givens:

2. A hydraulic jack lifts 7859 N on its large piston with an area of 226 cm^2. How much force must be exerted on the small piston if it has an area of 105 cm^2?
   Givens:

3. A force of 599 N is applied to a large piston in a hydraulic system. How much force must be exerted on the 16 cm^2 piston if the large piston has an area of 59 cm^2?
   Givens:

4. A hydraulic jack lifts 7859 N on a piston with an area of 226 cm^2. What is the area of the other piston if it exerts a force of 900 N?
   Givens:

5. A small piston is attached to a large piston in a hydraulic system. A force of 456 N is applied to a small piston. If the large piston exerts a force of 963 N, what is the area of the large piston? (The small piston has an area of 8 cm^2.
   Givens:

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6. A small piston is attached to a large piston in a hydraulic system. A force of 45 N is applied to a small piston. If the large piston exerts a force of 93 N, what is the area of the large piston? (The small piston has an area of 8.9 cm^2.
   Givens:

7. A hydraulic jack lifts 8 N on its large piston with an area of 60 cm^2. How much force must be exerted on the small piston if it has an area of 19 cm^2?
   Givens:

8. A force of 90 N is applied to a large piston in a hydraulic system. How much force must be exerted on the 18 cm^2 piston if the large piston has an area of 63 cm^2?
   Givens:

9. A hydraulic jack lifts 711 N on its large piston with an area of 250 cm^2. How much force must be exerted on the small piston if it has an area of 190 cm^2?
   Givens:

10. A hydraulic jack lifts 78 N on a piston with an area of 26 cm^2. What is the area of the other piston if it exerts a force of 90 N?
    Givens: