Newton's Second Law

Question Group 1

Question 1

An object has an acceleration of 6.0 m/s/s. If the net force acting upon this object were doubled, then its new acceleration would be _____ m/s/s.

Question 2

An object has an acceleration of 12.0 m/s/s. If the net force acting upon this object were doubled, then its new acceleration would be _____ m/s/s.

Question 3

An object has an acceleration of 18.0 m/s/s. If the net force acting upon this object were doubled, then its new acceleration would be _____ m/s/s.

Question Group 2

Question 4

An object has an acceleration of 6.0 m/s/s. If the net force acting upon this object were tripled, then its new acceleration would be _____ m/s/s.

Question 5

An object has an acceleration of 12.0 m/s/s. If the net force acting upon this object were tripled, then its new acceleration would be _____ m/s/s.

Question 6

An object has an acceleration of 18.0 m/s/s. If the net force acting upon this object were tripled, then its new acceleration would be _____ m/s/s.

Question Group 3

Question 7

An object has an acceleration of 6.0 m/s/s. If the mass of this object were doubled (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question 8

An object has an acceleration of 12.0 m/s/s. If the mass of this object were doubled (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question 9

An object has an acceleration of 18.0 m/s/s. If the mass of this object were doubled (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question Group 4

Question 10

An object has an acceleration of 6.0 m/s/s. If the mass of this object were tripled (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question 11

An object has an acceleration of 12.0 m/s/s. If the mass of this object were tripled (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question 12

An object has an acceleration of 18.0 m/s/s. If the mass of this object were tripled (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question Group 5

Question 13

An object has an acceleration of 6.0 m/s/s. If the net force acting upon this object were halved (i.e., one-half of the original net force), then its new acceleration would be ______ m/s/s.

Question 14

An object has an acceleration of 12.0 m/s/s. If the net force acting upon this object were halved (i.e., one-half of the original net force), then its new acceleration would be _____ m/s/s.

Question 15

An object has an acceleration of 18.0 m/s/s. If the net force acting upon this object were halved (i.e., one-half of the original net force), then its new acceleration would be _____ m/s/s.

Question Group 6

Question 16

An object has an acceleration of 6.0 m/s/s. If the net force acting upon this object were one-third of the original net force, then its new acceleration would be _____ m/s/s.

Question 17

An object has an acceleration of 12.0 m/s/s. If the net force acting upon this object were one-third of the original net force, then its new acceleration would be _____ m/s/s.

Question 18

An object has an acceleration of 18.0 m/s/s. If the net force acting upon this object were one-third of the original net force, then its new acceleration would be _____ m/s/s.

Question Group 7

Question 19

An object has an acceleration of 6.0 m/s/s. If the mass of this object were halved (i.e., reduced to one-half the original value) (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question 20

An object has an acceleration of 12.0 m/s/s. If the mass of this object were halved (i.e., reduced to one-half the original value) (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question 21

An object has an acceleration of 18.0 m/s/s. If the mass of this object were halved (i.e., reduced to one-half the original value) (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question Group 8

Question 22

An object has an acceleration of 6.0 m/s/s. If the mass of this object were reduced to one-third the original value (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question 23

An object has an acceleration of 12.0 m/s/s. If the mass of this object were reduced to one-third the original value (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question 24

An object has an acceleration of 18.0 m/s/s. If the mass of this object were reduced to one-third the original value (with no change in its net force), then its new acceleration would be _____ m/s/s.

Question Group 9

Question 25

An object has an acceleration of 6.0 m/s/s. If the net force was doubled and the mass were tripled, then the new acceleration would be _____ m/s/s.

Question 26

An object has an acceleration of 12.0 m/s/s. If the net force was doubled and the mass were tripled, then the new acceleration would be _____ m/s/s.

Question 27

An object has an acceleration of 18.0 m/s/s. If the net force was doubled and the mass were tripled, then the new acceleration would be _____ m/s/s.

Question Group 10

Question 28

An object has an acceleration of 6.0 m/s/s. If the net force was tripled and the mass were doubled, then the new acceleration would be _____ m/s/s.

Question 29

An object has an acceleration of 12.0 m/s/s. If the net force was tripled and the mass were doubled, then the new acceleration would be _____ m/s/s.

Question 30

An object has an acceleration of 18.0 m/s/s. If the net force was tripled and the mass were doubled, then the new acceleration would be _____ m/s/s.

Question Group 11

Question 31

An object has an acceleration of 6.0 m/s/s. If the net force was tripled and the mass were halved, then the new acceleration would be _____ m/s/s.

Question 32

An object has an acceleration of 12.0 m/s/s. If the net force was tripled and the mass were halved, then the new acceleration would be _____ m/s/s.

Question 33

An object has an acceleration of 18.0 m/s/s. If the net force was tripled and the mass were halved, then the new acceleration would be _____ m/s/s.

Question Group 12

Question 34

An object has an acceleration of 6.0 m/s/s. If the net force was doubled and the mass was one-third the original value, then the new acceleration would be _____ m/s/s.

Question 35

An object has an acceleration of 12.0 m/s/s. If the net force was doubled and the mass was one-third the original value, then the new acceleration would be _____ m/s/s.

Question 36

An object has an acceleration of 18.0 m/s/s. If the net force was doubled and the mass was one-third the original value, then the new acceleration would be _____ m/s/s.