111-112 · NEW BRUNSWICK

111-112
Practice Test

Unit B: Dynamics

25 Questions

Original practice test based on the New Brunswick curriculum. Work through each question, then check your answers at the end.

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

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Question 1

A 10 kilogram *kettlebell on* Earth , where $g = 10$ metres *per* second squared , *has* weight , *in* newtons , *of*

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Question 2

A net force acts on a mass of 10 kilograms giving acceleration 2 metres per second squared. The net force, in newtons, is

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Question 3

A net force of 20 newtons acts on a mass of 10 kilograms. Its acceleration, in metres per second squared, is

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Question 4

A 2 kilogram mass is pulled by a 10 newton force against 4 newtons of friction. The net force, in newtons, is

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Question 5

Friction opposes

A) gravity only

B) mass

C) speed only

D) motion

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Question 6

A free body diagram shows

A) all objects in a room

B) motion only

C) energy only

D) forces acting on one object

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Question 7

An object at equilibrium has a net force of

A) its weight

B) its mass

C) zero

D) gravity

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Question 8

Inertia is the tendency of an object to resist a change in its

A) mass

B) colour

C) motion

D) temperature

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Question 9

Kinetic friction acts on an object that is

A) at rest

B) sliding

C) in free fall

D) at equilibrium only

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Question 10

Mass is measured in

A) newtons

B) metres

C) seconds

D) kilograms

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Question 11

A mass *of* 20 kilograms *on* Earth , where $g = 10$ metres *per* second squared , *has* weight , *in* newtons , *of*

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Question 12

A net force acts on a mass of 5 kilograms giving acceleration 4 metres per second squared. The net force, in newtons, is

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Question 13

A net force of 30 newtons acts on a mass of 5 kilograms. Its acceleration, in metres per second squared, is

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Question 14

A 4 kilogram mass is pulled by a 20 newton force against 8 newtons of friction. The net force, in newtons, is

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Question 15

A 5 kilogram *bowling ball on* Earth , where $g = 10$ metres *per* second squared , *has* weight , *in* newtons , *of*

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Question 16

A net force acts on a mass of 20 kilograms giving acceleration 3 metres per second squared. The net force, in newtons, is

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Question 17

A net force of 40 newtons acts on a mass of 8 kilograms. Its acceleration, in metres per second squared, is

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Question 18

A 3 kilogram mass is pulled by a 15 newton force against 3 newtons of friction. The net force, in newtons, is

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Question 19

A mass *of* 30 kilograms *on* Earth , where $g = 10$ metres *per* second squared , *has* weight , *in* newtons , *of*

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Question 20

A net force acts on a 4 kilogram wagon giving acceleration 5 metres per second squared. The net force, in newtons, is

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Question 21

A net force of 50 newtons acts on a mass of 10 kilograms. Its acceleration, in metres per second squared, is

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Question 22

A 5 kilogram mass is pulled by a 25 newton force against 5 newtons of friction. The net force, in newtons, is

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Question 23

A mass *of* 7 kilograms *on* Earth , where $g = 10$ metres *per* second squared , *has* weight , *in* newtons , *of*

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Question 24

A net force acts on a mass of 8 kilograms giving acceleration 2.5 metres per second squared. The net force, in newtons, is

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Question 25

A net force of 60 newtons acts on a 12 kilogram bicycle. Its acceleration, in metres per second squared, is

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ANSWER KEY

1.	100	**10.**	D	**18.**	12
2.	20	**11.**	200	**19.**	300
3.	2	**12.**	20	**20.**	20
4.	6	**13.**	6	**21.**	5
5.	D	**14.**	12	**22.**	20
6.	D	**15.**	50	**23.**	70
7.	C	**16.**	60	**24.**	20
8.	C	**17.**	5	**25.**	5
9.	B				

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