

BONE	RACE	MALE EQUATION	FEMALE EQUATION
Femur	Caucasoid	$2.32 \times \text{femur} + 65.53 \pm 3.94 \text{ cm}$	$2.47 \times \text{femur} + 54.10 \pm 3.72 \text{ cm}$
	Negroid	$2.10 \times \text{femur} + 72.22 \pm 3.91 \text{ cm}$	$2.28 \times \text{femur} + 59.76 \pm 3.41 \text{ cm}$
	Mongoloid	$2.15 \times \text{femur} + 72.57 \pm 3.80 \text{ cm}$	(Use Male)
Tibia	Caucasoid	$2.42 \times \text{tibia} + 81.93 \pm 4.00 \text{ cm}$	$2.90 \times \text{tibia} + 61.53 \pm 3.66 \text{ cm}$
	Negroid	$2.19 \times \text{tibia} + 85.36 \pm 3.96 \text{ cm}$	$2.45 \times \text{tibia} + 72.56 \pm 3.70 \text{ cm}$
	Mongoloid	$2.39 \times \text{tibia} + 81.45 \pm 3.24 \text{ cm}$	(Use Male)
Fibula	Caucasoid	$2.60 \times \text{fibula} + 75.50 \pm 3.86 \text{ cm}$	$2.93 \times \text{fibula} + 59.61 \pm 3.57 \text{ cm}$
	Negroid	$2.34 \times \text{fibula} + 80.07 \pm 4.02 \text{ cm}$	$2.49 \times \text{fibula} + 70.90 \pm 3.80 \text{ cm}$
	Mongoloid	$2.40 \times \text{fibula} + 80.56 \pm 3.24 \text{ cm}$	(Use Male)
Humerus	Caucasoid	$2.89 \times \text{humerus} + 78.10 \pm 4.57 \text{ cm}$	$3.36 \times \text{humerus} + 57.97 \pm 4.45 \text{ cm}$
	Negroid	$2.88 \times \text{humerus} + 75.48 \pm 4.23 \text{ cm}$	$3.08 \times \text{humerus} + 64.67 \pm 4.25 \text{ cm}$
	Mongoloid	$2.68 \times \text{humerus} + 83.19 \pm 4.16 \text{ cm}$	(Use Male)
Ulna	Caucasoid	$3.76 \times \text{ulna} + 75.55 \pm 4.72 \text{ cm}$	$4.27 \times \text{ulna} + 57.76 \pm 4.30 \text{ cm}$
	Negroid	$3.20 \times \text{ulna} + 82.77 \pm 4.74 \text{ cm}$	$3.31 \times \text{ulna} + 75.38 \pm 4.83 \text{ cm}$
	Mongoloid	$3.48 \times \text{ulna} + 77.45 \pm 4.66 \text{ cm}$	(Use Male)
Radius	Caucasoid	$3.79 \times \text{radius} + 79.42 \pm 4.66 \text{ cm}$	$4.74 \times \text{radius} + 54.93 \pm 4.24 \text{ cm}$
	Negroid	$3.32 \times \text{radius} + 85.43 \pm 4.57 \text{ cm}$	$3.67 \times \text{radius} + 71.79 \pm 4.59 \text{ cm}$
	Mongoloid	$3.54 \times \text{radius} + 82.00 \pm 4.60 \text{ cm}$	(Use Male)

Calculating Height of Individuals:

Name: _____

Using the correct formula for each of the bones below, calculate how tall the individual would have been, with the correct range of height (remember each formula gives you a + or – cm).

Bone Description	Height	Bone Description	Height
Bone: Femur = 41 cm Gender: Male Race: Negroid		Bone: Femur = 43 cm Gender: Female Race: Negroid	
Bone: Tibia = 37 cm Gender: Female Race: Negroid		Bone: Ulna = 26 cm Gender: Male Race: Mongoloid	
Bone: Humerus = 31 cm Gender: Male Race: Caucasoid		Bone: Radius = 19 cm Gender: Female Race: Mongoloid	
Bone: Ulna = 29 cm Gender: Female Race: Caucasoid		Bone: Tibia = 41 cm Gender: Male Race: Caucasoid	
Bone: Radius = 25 cm Gender: Male Race: Mongoloid		Bone: Fibula = 38 cm Gender: Female Race: Caucasoid	
Bone: Fibula = 35 cm Gender: Female Race: Mongoloid		Bone: Femur = 45 cm Gender: Male Race: Negroid	
Bone: Humerus = 22 cm Gender: Male Race: Negroid		Bone: Tibia = 40 cm Gender: Female Race: Mongoloid	