Practice worksheet | Continuous probability and normal distributions

Normal probabilities and inverse-normal values

Name: _____ Date: _____

6 questions | 14 marks

1. $X \sim N(100, 64)$. Find $P(X > 112)$. [2 marks]

2. A normal model has mean 50 and SD 6. Find its 2.5th percentile. [2 marks]

3. Find the central 90% interval for a normal model with mean 52 and SD 4. [3 marks]

4. A normal variable has SD 8 and $P(X < 80) = 0.90$. Find its mean. [3 marks]

5. For standard normal Z, find $P(Z > 1 \mid Z > 0)$. [2 marks]

6. A calculator returns -0.12 for an interval probability. What should you check? [2 marks]