Finding the Range

Name _____

Score _____

Find the range of each function.

1) $f(x) = \sqrt{2x} - 8$

Domain = {−8, 0, 2, 18}

Range =

2) $f(x) = \dfrac{2x + 3}{3}$

Domain = {−18, −12, −9, −6}

Range =

3) $f(x) = 5 - 3x$

Domain = {−7, −5, −4, −2, −1, 3}

Range =

4) $f(x) = -7x$

Domain = {−4, −3, −1, 2, 5, 7}

Range =

5) $f(x) = \dfrac{x}{2}$

Domain = {2, 4, 8, 12, 14, 18, 20}

Range =

6) $f(x) = x + 4$

Domain = {−10, −5, 5, 6, 8, 9, 11}

Range =

7) $f(x) = x^3 - x^2 - x + 4$

Domain = {−2, −1, 0, 2, 4}

Range =

8) $f(x) = -3x^2 + 1$

Domain = {−5, −4, −2, −1, 3}

Range =

Finding the Range

Answer key

Find the range of each function.

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1) $f(x) = \sqrt{2x} - 8$

Domain = {–8, 0, 2, 18}

Range = **{–4, –8, –6, –2}**

2) $f(x) = \dfrac{2x + 3}{3}$

Domain = {–18, –12, –9, –6}

Range = **{–11, –7, –5, –3}**

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3) $f(x) = 5 - 3x$

Domain = {–7, –5, –4, –2, –1, 3}

Range = **{–4, 8, 11, 17, 20, 26}**

4) $f(x) = -7x$

Domain = {–4, –3, –1, 2, 5, 7}

Range = **{–49, –35, –14, 7, 21, 28}**

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5) $f(x) = \dfrac{x}{2}$

Domain = {2, 4, 8, 12, 14, 18, 20}

Range = **{1, 2, 4, 6, 7, 9, 10}**

6) $f(x) = x + 4$

Domain = {–10, –5, 5, 6, 8, 9, 11}

Range = **{–6, –1, 9, 10, 12, 13, 15}**

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7) $f(x) = x^3 - x^2 - x + 4$

Domain = {–2, –1, 0, 2, 4}

Range = **{–6, 3, 4, 6, 48}**

8) $f(x) = -3x^2 + 1$

Domain = {–5, –4, –2, –1, 3}

Range = **{–74, –47, –26, –11, –2}**